

PISA 2009

Data Tables, Figures, and Exhibits

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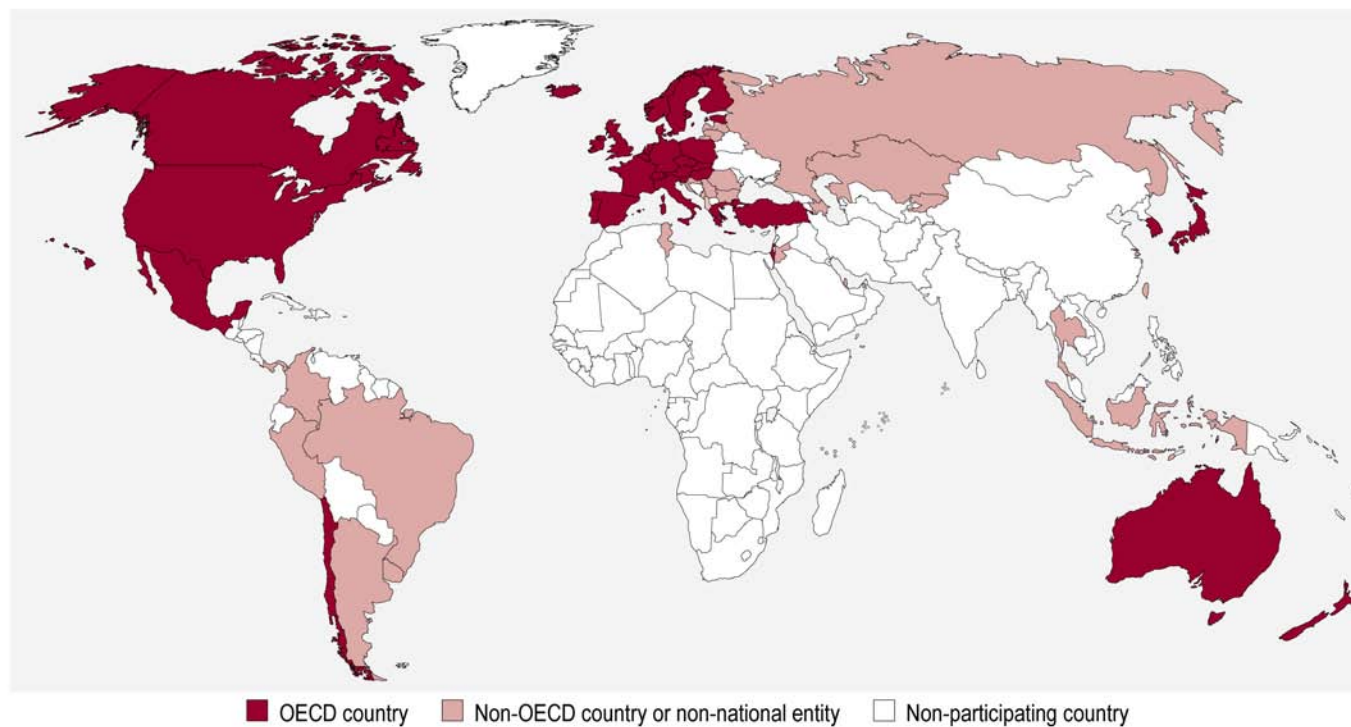
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Figure 1. PISA administration cycle

Assessment year	2000	2003	2006	2009	2012	2015
Subjects assessed	READING Mathematics Science	Reading MATHEMATICS Science Problem solving	Reading Mathematics SCIENCE	READING Mathematics Science	Reading MATHEMATICS Science Problem solving	Reading Mathematics SCIENCE

NOTE: Reading, mathematics, and science literacy are all assessed in each assessment cycle of the Program for International Student Assessment (PISA). A separate problem-solving assessment was administered in 2003 and is planned for 2012. The subject in all capital letters is the major subject area for that cycle.
SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Figure 2. Countries that participated in PISA 2009



SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table 1. Participation in PISA, by country: 2000, 2003, 2006, and 2009

Country	2000	2003	2006	2009	Country	2000	2003	2006	2009
<i>OECD countries</i>					<i>Non-OECD countries</i>				
Australia	•	•	•	•	Albania	•			•
Austria	•	•	•	•	Argentina	•		•	•
Belgium	•	•	•	•	Azerbaijan			•	•
Canada	•	•	•	•	Brazil	•	•	•	•
Chile	•		•	•	Bulgaria	•		•	•
Czech Republic	•	•	•	•	<i>Chinese Taipei</i>			•	•
Denmark	•	•	•	•	Colombia			•	•
Estonia			•	•	Croatia			•	•
Finland	•	•	•	•	<i>Dubai-UAE</i>				•
France	•	•	•	•	<i>Hong Kong-China</i>	•	•	•	•
Germany	•	•	•	•	Indonesia	•	•	•	•
Greece	•	•	•	•	Jordan			•	•
Hungary	•	•	•	•	Kazakhstan				•
Iceland	•	•	•	•	Kyrgyz Republic			•	•
Ireland	•	•	•	•	Latvia	•	•	•	•
Israel	•		•	•	Liechtenstein	•	•	•	•
Italy	•	•	•	•	Lithuania			•	•
Japan	•	•	•	•	<i>Macao-China</i>		•	•	•
Korea, Republic of	•	•	•	•	Macedonia	•		•	•
Luxembourg	•	•	•	•	Montenegro, Republic of ¹		•	•	•
Mexico	•	•	•	•	Panama				•
Netherlands	•	•	•	•	Peru	•			•
New Zealand	•	•	•	•	Qatar			•	•
Norway	•	•	•	•	Romania	•		•	•
Poland	•	•	•	•	Russian Federation	•	•	•	•
Portugal	•	•	•	•	Serbia, Republic of ¹		•	•	•
Slovak Republic		•	•	•	<i>Shanghai-China</i>				•
Slovenia			•	•	Singapore				•
Spain	•	•	•	•	Thailand	•	•	•	•
Sweden	•	•	•	•	Trinidad and Tobago				•
Switzerland	•	•	•	•	Tunisia		•	•	•
Turkey		•	•	•	Uruguay		•	•	•
United Kingdom	•	•	•	•					
United States	•	•	•	•					

¹ The Republics of Montenegro and Serbia were a united country under the Program for International Student Assessment (PISA) 2003 assessment.

NOTE: A "•" indicates that the country participated in PISA in the specific year. Because PISA is principally an Organization for Economic Cooperation and Development (OECD) study, non-OECD countries are displayed separately from those of the OECD countries. Eleven non-OECD countries and other education systems—Albania, Argentina, Bulgaria, Chile, Hong Kong-China, Indonesia, Israel, Macedonia, Peru, Romania, and Thailand—administered PISA 2000 in 2001. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2000, 2003, 2006, and 2009.

Table 2. Percentage distribution of U.S. 15-year-old students, by grade level: 2009

Grade level	Percent	s.e.
Grade 7	#	†
Grade 8	‡	†
Grade 9	10.9	0.77
Grade 10	68.5	0.98
Grade 11	20.3	0.73
Grade 12	0.1!	0.06
Total	100.0	†

† Not applicable.

Rounds to zero.

! Interpret data with caution.

‡ Reporting standards not met.

NOTE: Detail may not sum to totals because of rounding. Standard error is noted by s.e.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table 3. Percentage distribution of 15-year-old students, by grade level and country: 2009

Country	Grade 7		Grade 8		Grade 9		Grade 10		Grade 11		Grade 12		Ungraded/ unknown	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
OECD average ¹	0.8	0.04	5.8	0.08	36.8	0.15	52.7	0.16	9.9	0.06	0.5	0.01	2.7	0.03
<i>OECD countries</i>														
Australia	#	†	0.1	0.03	10.4	0.59	70.8	0.61	18.6	0.61	0.1!	0.03	#	†
Austria	0.7!	0.25	6.2	1.02	42.4	0.95	50.7	1.02	#	†	#	†	#	†
Belgium	0.4!	0.15	5.4	0.48	31.4	0.60	59.8	0.74	1.2	0.14	#	†	1.8	0.27
Canada	#	†	1.2	0.17	13.6	0.45	84.1	0.53	1.1	0.11	#	†	#	†
Chile	1.0	0.18	3.9	0.47	20.5	0.80	69.4	0.99	5.2	0.27	#	†	#	†
Czech Republic	0.5!	0.15	3.8	0.32	48.9	1.05	46.7	1.08	#	†	#	†	#	†
Denmark	0.1	0.03	14.7	0.64	83.5	0.76	1.7	0.49	#	†	#	†	#	†
Estonia	1.6	0.29	24.0	0.72	72.4	0.87	1.8	0.25	‡	†	#	†	#	†
Finland	0.5	0.12	11.8	0.51	87.3	0.54	#	†	0.4	0.11	#	†	#	†
France	‡	†	3.6	0.67	34.4	1.22	56.6	1.54	4.0	0.68	0.1!	0.04	#	†
Germany	1.2	0.16	10.5	0.47	52.6	0.76	31.3	0.82	0.4	0.11	#	†	4.0	0.54
Greece	0.4!	0.19	1.4!	0.47	5.5	0.82	92.7	1.05	#	†	#	†	#	†
Hungary	2.8	0.64	7.6	1.12	67.1	1.42	22.4	0.92	‡	†	#	†	#	†
Iceland	#	†	#	†	#	†	98.3	0.12	1.7	0.10	#	†	#	†
Ireland	‡	†	2.4	0.34	59.1	1.03	24.0	1.44	14.4	1.10	#	†	#	†
Israel	#	†	0.3!	0.11	17.9	0.96	81.3	0.97	0.5!	0.18	#	†	#	†
Italy	0.1!	0.07	1.4	0.28	16.9	0.44	78.4	0.55	3.2	0.25	#	†	#	†
Japan	#	†	#	†	#	†	100.0	#	#	†	#	†	#	†
Korea, Republic of	#	†	#	†	4.2	0.85	95.1	0.88	0.7	0.12	#	†	#	†
Luxembourg	0.6	0.10	11.6	0.19	51.6	0.28	36.0	0.24	0.3	0.05	#	†	#	†
Mexico	1.7	0.12	7.4	0.35	34.4	0.86	55.4	0.94	0.7	0.20	#	†	‡	†
Netherlands	‡	†	2.7	0.29	46.2	1.14	50.5	1.15	0.5	0.13	#	†	#	†
New Zealand	#	†	#	†	#	†	5.9	0.36	88.8	0.48	5.3	0.33	#	†
Norway	#	†	#	†	0.5	0.10	99.3	0.16	‡	†	#	†	#	†
Poland	1.0	0.22	4.5	0.38	93.6	0.56	0.9!	0.29	#	†	#	†	#	†
Portugal	2.2	0.25	8.4	0.70	25.8	1.53	56.0	2.07	0.4	0.07	#	†	7.2	0.83
Slovak Republic	1.0	0.22	2.6	0.31	35.7	1.45	56.9	1.58	3.8	0.76	#	†	#	†
Slovenia	#	†	‡	†	3.0	0.74	90.7	0.75	6.2	0.22	#	†	#	†
Spain	0.1	0.04	9.9	0.44	26.5	0.57	63.4	0.68	#	†	#	†	#	†
Sweden	‡	†	3.2	0.30	95.1	0.57	1.6	0.47	#	†	#	†	#	†
Switzerland	0.6	0.11	15.5	0.94	61.7	1.28	21.0	1.10	1.2!	0.50	#	†	#	†
Turkey	0.7	0.14	3.5	0.76	25.2	1.29	66.6	1.52	3.8	0.26	0.2!	0.07	#	†
United Kingdom	#	†	#	†	#	†	1.2	0.13	98.0	0.14	0.8	0.04	#	†
United States	#	†	‡	†	10.9	0.77	68.5	0.98	20.3	0.73	0.1!	0.06	#	†

See notes at end of table.

Table 3. Percentage distribution of 15-year-old students, by grade level and country: 2009—Continued

Country	Grade 7		Grade 8		Grade 9		Grade 10		Grade 11		Grade 12		Ungraded/ unknown	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
<i>Non-OECD countries</i>														
Albania	0.4!	0.12	2.2	0.32	50.9	1.97	46.4	1.99	0.1!	0.05	#	†	#	†
Argentina	4.6	0.93	12.6	1.30	20.0	1.26	56.7	2.12	4.2	0.48	#	†	‡	†
Azerbaijan	0.6	0.17	5.3	0.46	49.4	1.26	44.3	1.27	0.4	0.10	#	†	#	†
Brazil	6.8	0.44	18.0	0.67	37.5	0.76	35.7	0.84	2.1	0.15	#	†	#	†
Bulgaria	1.5	0.28	6.1	0.62	88.7	0.90	3.8	0.59	#	†	#	†	#	†
<i>Chinese Taipei</i>	#	†	0.1!	0.03	34.4	0.88	65.5	0.89	#	†	#	†	#	†
Colombia	4.4	0.52	10.3	0.69	22.1	0.85	42.3	0.99	21.0	0.95	#	†	#	†
Croatia	#	†	‡	†	77.5	0.45	22.3	0.43	#	†	#	†	#	†
<i>Dubai-UAE</i>	1.1	0.09	3.4	0.15	14.8	0.36	56.9	0.51	22.9	0.45	0.9	0.12	#	†
<i>Hong Kong-China</i>	1.7	0.23	7.2	0.48	25.2	0.55	65.9	0.85	0.1!	0.03	#	†	#	†
Indonesia	1.5!	0.49	6.5	0.78	46.0	3.13	40.5	3.19	5.0	0.82	‡	†	#	†
Jordan	‡	†	1.3	0.24	7.0	0.52	91.6	0.65	#	†	#	†	#	†
Kazakhstan	0.4	0.10	6.4	0.41	73.3	1.92	19.7	2.05	0.1!	0.04	#	†	#	†
Kyrgyz Republic	0.2!	0.07	7.9	0.54	71.4	1.29	19.8	1.42	0.7	0.13	#	†	#	†
Latvia	2.6	0.49	15.3	0.70	78.7	0.98	2.3	0.35	0.1!	0.05	#	†	‡	†
Liechtenstein	‡	†	17.5	1.12	71.3	0.79	10.4	0.96	#	†	#	†	#	†
Lithuania	0.5	0.11	10.2	0.88	80.9	0.84	8.4	0.60	#	†	#	†	#	†
<i>Macao-China</i>	6.7	0.13	19.2	0.16	34.9	0.15	38.7	0.14	0.5	0.08	#	†	#	†
Montenegro, Republic of	#	†	‡	†	82.7	1.46	14.8	0.34	#	†	#	†	#	†
Panama	2.9	0.78	10.6	1.64	30.6	3.28	49.8	4.48	6.1	1.38	#	†	#	†
Peru	4.0	0.41	8.9	0.57	17.1	0.72	44.6	1.06	25.4	0.83	#	†	#	†
Qatar	1.7	0.07	3.6	0.13	13.5	0.17	62.6	0.17	18.2	0.17	0.4	0.07	#	†
Romania	#	†	7.2	0.96	88.6	1.09	4.3	0.61	#	†	#	†	#	†
Russian Federation	0.9	0.18	10.0	0.74	60.1	1.80	28.1	1.64	0.9	0.19	#	†	#	†
Serbia, Republic of	‡	†	2.1	0.53	96.0	0.62	1.7	0.18	#	†	#	†	#	†
<i>Shanghai-China</i>	1.0	0.25	4.1	0.45	37.4	0.77	57.1	0.89	0.4!	0.18	#	†	#	†
Singapore	1.0	0.16	2.6	0.21	34.7	0.38	61.6	0.31	#	†	#	†	#	†
Thailand	‡	†	0.5	0.11	23.2	1.15	73.5	1.14	2.7	0.41	#	†	#	†
Trinidad and Tobago	2.1	0.21	8.8	0.37	25.3	0.40	56.1	0.38	7.7	0.31	#	†	#	†
Tunisia	6.4	0.41	13.4	0.60	23.9	0.93	50.9	1.40	5.4	0.43	#	†	#	†
Uruguay	7.1	0.76	10.6	0.57	21.5	0.75	56.2	1.09	4.6	0.44	#	†	#	†

† Not applicable.

Rounds to zero.

! Interpret data with caution.

‡ Reporting standards not met.

¹ In computing the Organization for Economic Cooperation and Development (OECD) average, the average for each column (grade in this case) is computed by averaging the estimates in the column but excluding those instances where no cases were reported (shown here as '#': rounds to zero). Therefore, the percentage distribution sums to greater than 100 (i.e., 109.2).

NOTE: The OECD average is the average of the national percentages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries and are not included in the OECD average. Standard error is noted by s.e. Detail may not sum to totals because of rounding. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table R1. Average scores of 15-year-old students on combined reading literacy scale and reading literacy subscales, by country: 2009




Combined reading literacy scale		Reading literacy subscales							
		Access and retrieve		Integrate and interpret		Reflect and evaluate			
Country	Score s.e.	Country	Score s.e.	Country	Score s.e.	Country	Score s.e.	Country	Score s.e.
OECD average	493 0.5	OECD average	495 0.5	OECD average	493 0.5	OECD average	494 0.5	OECD average	494 0.5
<i>OECD countries</i>		<i>OECD countries</i>		<i>OECD countries</i>		<i>OECD countries</i>		<i>OECD countries</i>	
Korea, Republic of	539 3.5	Korea, Republic of	542 3.6	Korea, Republic of	541 3.4	Korea, Republic of	542 3.9	Korea, Republic of	542 3.9
Finland	536 2.3	Finland	532 2.7	Finland	538 2.3	Finland	536 2.2	Finland	536 2.2
Canada	524 1.5	Japan	530 3.8	Canada	522 1.5	Canada	535 1.6	Canada	535 1.6
New Zealand	521 2.4	New Zealand	521 2.4	Japan	520 3.5	New Zealand	531 2.5	New Zealand	531 2.5
Japan	520 3.5	Netherlands	519 5.1	New Zealand	517 2.4	Australia	523 2.5	Australia	523 2.5
Australia	515 2.3	Canada	517 1.5	Australia	513 2.4	Japan	521 3.9	Japan	521 3.9
Netherlands	508 5.1	Belgium	513 2.4	Netherlands	504 5.4	United States	512 4.0	United States	512 4.0
Belgium	506 2.3	Australia	513 2.4	Belgium	504 2.5	Netherlands	510 5.0	Netherlands	510 5.0
Norway	503 2.6	Norway	512 2.8	Poland	503 2.8	Belgium	505 2.5	Belgium	505 2.5
Estonia	501 2.6	Iceland	507 1.6	Iceland	503 1.5	Norway	505 2.7	Norway	505 2.7
Switzerland	501 2.4	Switzerland	505 2.7	Norway	502 2.7	United Kingdom	503 2.4	United Kingdom	503 2.4
Poland	500 2.6	Sweden	505 2.9	Switzerland	502 2.5	Estonia	503 2.6	Estonia	503 2.6
Iceland	500 1.4	Estonia	503 3.0	Germany	501 2.8	Ireland	502 3.1	Ireland	502 3.1
United States	500 3.7	Denmark	502 2.6	Estonia	500 2.8	Sweden	502 3.0	Sweden	502 3.0
Sweden	497 2.9	Hungary	501 3.7	France	497 3.6	Poland	498 2.8	Poland	498 2.8
Germany	497 2.7	Germany	501 3.5	Hungary	496 3.2	Switzerland	497 2.7	Switzerland	497 2.7
Ireland	496 3.0	Poland	500 2.8	United States	495 3.7	Portugal	496 3.3	Portugal	496 3.3
France	496 3.4	Ireland	498 3.3	Sweden	494 3.0	Iceland	496 1.4	Iceland	496 1.4
Denmark	495 2.1	United States	492 3.6	Ireland	494 3.0	France	495 3.4	France	495 3.4
United Kingdom	494 2.3	France	492 3.8	Denmark	492 2.1	Denmark	493 2.6	Denmark	493 2.6
Hungary	494 3.2	United Kingdom	491 2.5	United Kingdom	491 2.4	Germany	491 2.8	Germany	491 2.8
Portugal	489 3.1	Slovak Republic	491 3.0	Italy	490 1.6	Greece	489 4.9	Greece	489 4.9
Italy	486 1.6	Slovenia	489 1.1	Slovenia	489 1.1	Hungary	489 3.3	Hungary	489 3.3
Slovenia	483 1.0	Portugal	488 3.3	Czech Republic	488 2.9	Spain	483 2.2	Spain	483 2.2
Greece	483 4.3	Italy	482 1.8	Portugal	487 3.0	Israel	483 4.0	Israel	483 4.0
Spain	481 2.0	Spain	480 2.1	Greece	484 4.0	Italy	482 1.8	Italy	482 1.8
Czech Republic	478 2.9	Czech Republic	479 3.2	Slovak Republic	481 2.5	Turkey	473 4.0	Turkey	473 4.0
Slovak Republic	477 2.5	Austria	477 3.2	Spain	481 2.0	Luxembourg	471 1.1	Luxembourg	471 1.1
Israel	474 3.6	Luxembourg	471 1.3	Luxembourg	475 1.1	Slovenia	470 1.2	Slovenia	470 1.2
Luxembourg	472 1.3	Greece	468 4.4	Israel	473 3.4	Slovak Republic	466 2.9	Slovak Republic	466 2.9
Austria	470 2.9	Turkey	467 4.1	Austria	471 2.9	Austria	463 3.4	Austria	463 3.4
Turkey	464 3.5	Israel	463 4.1	Turkey	459 3.3	Czech Republic	462 3.1	Czech Republic	462 3.1
Chile	449 3.1	Chile	444 3.4	Chile	452 3.1	Chile	452 3.2	Chile	452 3.2
Mexico	425 2.0	Mexico	433 2.1	Mexico	418 2.0	Mexico	432 1.9	Mexico	432 1.9

- Average is higher than the U.S. average
- Average is not measurably different from the U.S. average
- Average is lower than the U.S. average

See notes at end of table.

Table R1. Average scores of 15-year-old students on combined reading literacy scale and reading literacy subscales, by country: 2009—Continued

Combined reading literacy scale			Reading literacy subscales								
			Access and retrieve			Integrate and interpret			Reflect and evaluate		
Country	Score	s.e.	Country	Score	s.e.	Country	Score	s.e.	Country	Score	s.e.
<i>Non-OECD countries</i>			<i>Non-OECD countries</i>			<i>Non-OECD countries</i>			<i>Non-OECD countries</i>		
Shanghai-China	556	2.4	Shanghai-China	549	2.9	Shanghai-China	558	2.5	Shanghai-China	557	2.4
Hong Kong-China	533	2.1	Hong Kong-China	530	2.7	Hong Kong-China	530	2.2	Hong Kong-China	540	2.5
Singapore	526	1.1	Singapore	526	1.4	Singapore	525	1.2	Singapore	529	1.1
Liechtenstein	499	2.8	Liechtenstein	508	4.0	Chinese Taipei	499	2.5	Liechtenstein	498	3.2
Chinese Taipei	495	2.6	Chinese Taipei	496	2.8	Liechtenstein	498	4.0	Chinese Taipei	493	2.8
Macao-China	487	0.9	Macao-China	493	1.2	Macao-China	488	0.8	Latvia	492	3.0
Latvia	484	3.0	Croatia	492	3.1	Latvia	484	2.8	Macao-China	481	0.8
Croatia	476	2.9	Lithuania	476	3.0	Croatia	472	2.9	Croatia	471	3.5
Lithuania	468	2.4	Latvia	476	3.6	Lithuania	469	2.4	Dubai-UAE	466	1.1
Dubai-UAE	459	1.1	Russian Federation	469	3.9	Russian Federation	467	3.1	Lithuania	463	2.5
Russian Federation	459	3.3	Dubai-UAE	458	1.4	Dubai-UAE	457	1.3	Russian Federation	441	3.7
Serbia, Republic of	442	2.4	Serbia, Republic of	449	3.1	Serbia, Republic of	445	2.4	Uruguay	436	2.9
Bulgaria	429	6.7	Thailand	431	3.5	Bulgaria	436	6.4	Serbia, Republic of	430	2.6
Uruguay	426	2.6	Bulgaria	430	8.3	Romania	425	4.0	Tunisia	427	3.0
Romania	424	4.1	Uruguay	424	2.9	Uruguay	423	2.6	Romania	426	4.5
Thailand	421	2.6	Romania	423	4.7	Montenegro, Republic of	420	1.6	Brazil	424	2.7
Trinidad and Tobago	416	1.2	Trinidad and Tobago	413	1.6	Trinidad and Tobago	419	1.4	Colombia	422	4.2
Colombia	413	3.7	Montenegro, Republic of	408	2.3	Thailand	416	2.6	Thailand	420	2.8
Brazil	412	2.7	Brazil	407	3.3	Colombia	411	3.8	Bulgaria	417	7.1
Montenegro, Republic of	408	1.7	Colombia	404	3.7	Jordan	410	3.1	Trinidad and Tobago	413	1.3
Jordan	405	3.3	Indonesia	399	4.7	Brazil	406	2.7	Indonesia	409	3.8
Tunisia	404	2.9	Kazakhstan	397	3.7	Argentina	398	4.7	Jordan	407	3.4
Indonesia	402	3.7	Argentina	394	4.8	Indonesia	397	3.5	Argentina	402	4.8
Argentina	398	4.6	Jordan	394	4.0	Kazakhstan	397	3.0	Montenegro, Republic of	383	1.9
Kazakhstan	390	3.1	Tunisia	393	3.3	Tunisia	393	2.7	Panama	377	6.3
Albania	385	4.0	Albania	380	4.7	Albania	393	3.8	Albania	376	4.6
Qatar	372	0.8	Peru	364	4.3	Qatar	379	0.9	Qatar	376	1.0
Panama	371	6.5	Panama	363	7.7	Azerbaijan	373	2.9	Kazakhstan	373	3.4
Peru	370	4.0	Azerbaijan	361	4.5	Panama	372	5.9	Peru	368	4.2
Azerbaijan	362	3.3	Qatar	354	1.0	Peru	371	4.0	Azerbaijan	335	3.8
Kyrgyz Republic	314	3.2	Kyrgyz Republic	299	4.0	Kyrgyz Republic	327	2.9	Kyrgyz Republic	300	4.0

-  Average is higher than the U.S. average
 Average is not measurably different from the U.S. average
 Average is lower than the U.S. average

NOTE: The Organization for Economic Cooperation and Development (OECD) average is the average of the national averages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries and are not included in the OECD average. Countries are ordered on the basis of average scores, from highest to lowest within the OECD countries and non-OECD countries. Scores are reported on a scale from 0 to 1,000. Score differences as noted between the United States and other countries (as well as between the United States and the OECD average) are significantly different at the .05 level of statistical significance. Standard error is noted by s.e. Italics indicate non-national entities. UAE refers to United Arab Emirates. SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

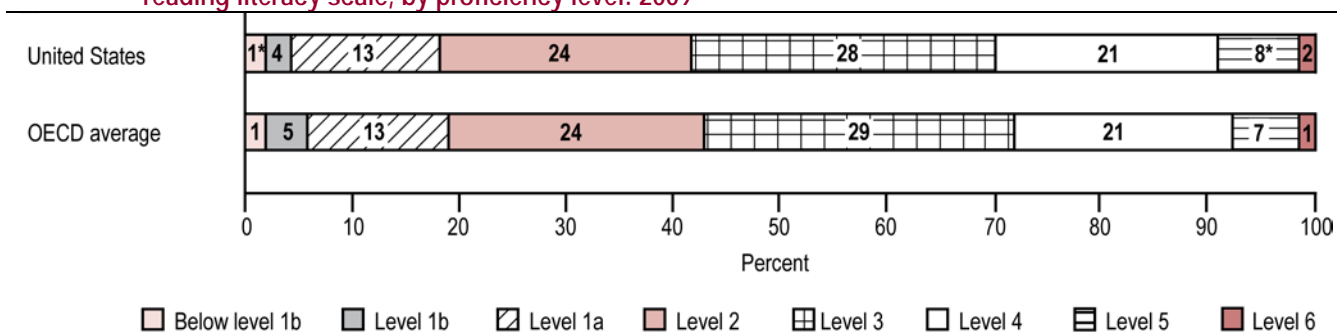
Exhibit R1. Description of PISA proficiency levels on combined reading literacy scale: 2009

Proficiency level and lower cut point score	Task descriptions
Level 6 698	At level 6, tasks typically require the reader to make multiple inferences, comparisons and contrasts that are both detailed and precise. They require demonstration of a full and detailed understanding of one or more texts and may involve integrating information from more than one text. Tasks may require the reader to deal with unfamiliar ideas, in the presence of prominent competing information, and to generate abstract categories for interpretations. Reflect and evaluate tasks may require the reader to hypothesize about or critically evaluate a complex text on an unfamiliar topic, taking into account multiple criteria or perspectives, and applying sophisticated understandings from beyond the text. There is limited data about access and retrieve tasks at this level, but it appears that a salient condition is precision of analysis and fine attention to detail that is inconspicuous in the texts.
Level 5 626	At level 5, tasks involve retrieving information require the reader to locate and organize several pieces of deeply embedded information, inferring which information in the text is relevant. Reflective tasks require critical evaluation or hypothesis, drawing on specialized knowledge. Both interpretative and reflective tasks require a full and detailed understanding of a text whose content or form is unfamiliar. For all aspects of reading, tasks at this level typically involve dealing with concepts that are contrary to expectations.
Level 4 553	At level 4, tasks involve retrieving information require the reader to locate and organize several pieces of embedded information. Some tasks at this level require interpreting the meaning of nuances of language in a section of text by taking into account the text as a whole. Other interpretative tasks require understanding and applying categories in an unfamiliar context. Reflective tasks at this level require readers to use formal or public knowledge to hypothesize about or critically evaluate a text. Readers must demonstrate an accurate understanding of long or complex texts whose content or form may be unfamiliar.
Level 3 480	At level 3, tasks require the reader to locate, and in some cases recognize the relationship between, several pieces of information that must meet multiple conditions. Interpretative tasks at this level require the reader to integrate several parts of a text in order to identify a main idea, understand a relationship or construe the meaning of a word or phrase. They need to take into account many features in comparing, contrasting or categorizing. Often the required information is not prominent or there is much competing information; or there are other text obstacles, such as ideas that are contrary to expectation or negatively worded. Reflective tasks at this level may require connections, comparisons, and explanations, or they may require the reader to evaluate a feature of the text. Some reflective tasks require readers to demonstrate a fine understanding of the text in relation to familiar, everyday knowledge. Other tasks do not require detailed text comprehension but require the reader to draw on less common knowledge.
Level 2 407	At level 2, some tasks require the reader to locate one or more pieces of information, which may need to be inferred and may need to meet several conditions. Others require recognizing the main idea in a text, understanding relationships, or construing meaning within a limited part of the text when the information is not prominent and the reader must make low level inferences. Tasks at this level may involve comparisons or contrasts based on a single feature in the text. Typical reflective tasks at this level require readers to make a comparison or several connections between the text and outside knowledge, by drawing on personal experience and attitudes.
Level 1a 335	At level 1a, tasks require the reader to locate one or more independent pieces of explicitly stated information; to recognize the main theme or author's purpose in a text about a familiar topic, or to make a simple connection between information in the text and common, everyday knowledge. Typically the required information in the text is prominent and there is little, if any, competing information. The reader is explicitly directed to consider relevant factors in the task and in the text.
Level 1b 262	At level 1b, tasks require the reader to locate a single piece of explicitly stated information in a prominent position in a short, syntactically simple text with a familiar context and text type, such as a narrative or a simple list. The text typically provides support to the reader, such as repetition of information, pictures or familiar symbols. There is minimal competing information. In tasks requiring interpretation the reader may need to make simple connections between adjacent pieces of information.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into reading literacy levels according to their scores. Exact cut point scores are as follows: below level 1b (a score less than or equal to 262.04); level 1b (a score greater than 262.04 and less than or equal to 334.75); level 1a (a score greater than 334.75 and less than or equal to 407.47); level 2 (a score greater than 407.47 and less than or equal to 480.18); level 3 (a score greater than 480.18 and less than or equal to 552.89); level 4 (a score greater than 552.89 and less than or equal to 625.61); level 5 (a score greater than 625.61 and less than or equal to 698.32); and level 6 (a score greater than 698.32). Scores are reported on a scale from 0 to 1,000.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Figure R1. Percentage distribution of 15-year-old students in the United States and OECD countries on combined reading literacy scale, by proficiency level: 2009






* $p < .05$. Significantly different from the corresponding Organization for Economic Cooperation and Development (OECD) average percentage at the .05 level of statistical significance.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into reading literacy levels according to their scores. Exact cut point scores are as follows: below level 1b (a score less than or equal to 262.04); level 1b (a score greater than 262.04 and less than or equal to 334.75); level 1a (a score greater than 334.75 and less than or equal to 407.47); level 2 (a score greater than 407.47 and less than or equal to 480.18); level 3 (a score greater than 480.18 and less than or equal to 552.89); level 4 (a score greater than 552.89 and less than or equal to 625.61); level 5 (a score greater than 625.61 and less than or equal to 698.32); and level 6 (a score greater than 698.32). Scores are reported on a scale from 0 to 1,000. The OECD average is the average of the national averages of the OECD member countries, with each country weighted equally. Detail may not sum to totals because of rounding.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table R2. Average scores of 15-year-old female and male students on combined reading literacy scale, by country: 2009

Country	Female		Male		Female-male difference	
	Score	s.e.	Score	s.e.	Score difference*	s.e.
OECD average	513	0.5	474	0.6	39	0.6
<i>OECD countries</i>						
Chile	461	3.6	439	3.9	22	4.1
Netherlands	521	5.3	496	5.1	24	2.4
United States	513	3.8	488	4.2	25	3.4
Mexico	438	2.1	413	2.1	25	1.6
United Kingdom	507	2.9	481	3.5	25	4.5
Belgium	520	2.9	493	3.4	27	4.4
Denmark	509	2.5	480	2.5	29	2.9
Spain	496	2.2	467	2.2	29	2.0
Canada	542	1.7	507	1.8	34	1.9
Korea, Republic of	558	3.8	523	4.9	35	5.9
Australia	533	2.6	496	2.9	37	3.1
Hungary	513	3.6	475	3.9	38	4.0
Portugal	508	2.9	470	3.5	38	2.4
Switzerland	520	2.7	481	2.9	39	2.5
Japan	540	3.7	501	5.6	39	6.8
Ireland	515	3.1	476	4.2	39	4.7
Luxembourg	492	1.5	453	1.9	39	2.3
Germany	518	2.9	478	3.6	40	3.9
France	515	3.4	475	4.3	40	3.7
Austria	490	4.0	449	3.8	41	5.5
Israel	495	3.4	452	5.2	42	5.2
Turkey	486	4.1	443	3.7	43	3.7
Iceland	522	1.9	478	2.1	44	2.8
Estonia	524	2.8	480	2.9	44	2.5
Sweden	521	3.1	475	3.2	46	2.7
New Zealand	544	2.6	499	3.6	46	4.3
Italy	510	1.9	464	2.3	46	2.8
Greece	506	3.5	459	5.5	47	4.3
Norway	527	2.9	480	3.0	47	2.9
Czech Republic	504	3.0	456	3.7	48	4.1
Poland	525	2.9	476	2.8	50	2.5
Slovak Republic	503	2.8	452	3.5	51	3.5
Slovenia	511	1.4	456	1.6	55	2.3
Finland	563	2.4	508	2.6	55	2.3

-  Female-male difference is smaller than U.S. difference
-  Female-male difference is not measurably different from U.S. difference
-  Female-male difference is larger than U.S. difference

See notes at end of table.

Table R2. Average scores of 15-year-old female and male students on combined reading literacy scale, by country: 2009—Continued

Country	Female		Male		Female-male difference	
	Score	s.e.	Score	s.e.	Score difference*	s.e.
<i>Non-OECD countries</i>						
Colombia	418	4.0	408	4.5	9!	3.8
Peru	381	4.9	359	4.2	22	4.7
Azerbaijan	374	3.3	350	3.7	24	2.4
Brazil	425	2.8	397	2.9	29	1.7
Tunisia	418	3.0	387	3.2	31	2.2
Singapore	542	1.5	511	1.7	31	2.3
Liechtenstein	516	4.5	484	4.5	32	7.1
<i>Hong Kong-China</i>	550	2.8	518	3.3	33	4.4
Panama	387	7.3	354	7.0	33	6.7
<i>Macao-China</i>	504	1.2	470	1.3	34	1.7
Indonesia	420	3.9	383	3.8	37	3.3
Argentina	415	4.9	379	5.1	37	3.8
<i>Chinese Taipei</i>	514	3.6	477	3.7	37	5.3
Thailand	438	3.1	400	3.3	38	3.8
Serbia, Republic of	462	2.5	422	3.3	39	3.0
<i>Shanghai-China</i>	576	2.3	536	3.0	40	2.9
Uruguay	445	2.8	404	3.2	42	3.1
Romania	445	4.3	403	4.6	43	4.4
Kazakhstan	412	3.4	369	3.2	43	2.7
Russian Federation	482	3.4	437	3.6	45	2.7
Latvia	507	3.1	460	3.4	47	3.2
Qatar	397	1.0	347	1.3	50	1.8
<i>Dubai-UAE</i>	485	1.5	435	1.7	51	2.3
Croatia	503	3.7	452	3.4	51	4.6
Montenegro, Republic of	434	2.1	382	2.1	53	2.6
Kyrgyz Republic	340	3.2	287	3.8	53	2.7
Jordan	434	4.1	377	4.7	57	6.2
Trinidad and Tobago	445	1.6	387	1.9	58	2.5
Lithuania	498	2.6	439	2.8	59	2.8
Bulgaria	461	5.8	400	7.3	61	4.7
Albania	417	3.9	355	5.1	62	4.4

- Female-male difference is smaller than U.S. difference
- Female-male difference is not measurably different from U.S. difference
- Female-male difference is larger than U.S. difference

! Interpret data with caution.

* $p < .05$. All differences between females and males are significantly different at the .05 level of statistical significance. Differences were computed using unrounded numbers.

NOTE: The Organization for Economic Cooperation and Development (OECD) average is the average of the national averages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries. Scores are reported on a scale from 0 to 1,000. Standard error is noted by s.e. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table R3. Average scores of U.S. 15-year-old students on combined reading literacy scale, by race/ethnicity: 2009

Race/ethnicity	Score	s.e.
U.S. average	500	3.7
White, non-Hispanic	525*	3.8
Black, non-Hispanic	441*	7.2
Hispanic	466*	4.3
Asian, non-Hispanic	541*	9.4
American Indian/Alaska Native, non-Hispanic	†	†
Native Hawaiian/Other Pacific Islander, non-Hispanic	†	†
Two or more races, non-Hispanic	502	6.4
OECD average	493	0.5

† Not applicable.

‡ Reporting standards not met.

* $p < .05$. Significantly different from the U.S. and Organization for Economic Cooperation and Development (OECD) averages at the .05 level of statistical significance.

NOTE: Black includes African American, and Hispanic includes Latino. Students who identified themselves as being of Hispanic origin were classified as Hispanic, regardless of their race. Although data for some race/ethnicities are not shown separately because the reporting standards were not met, they are included in the U.S. totals shown throughout the report. The OECD average is the average of the national averages of the OECD member countries, with each country weighted equally. Scores are reported on a scale from 0 to 1,000. Standard error is noted by s.e.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table R4. Average scores of U.S. 15-year-old students on combined reading literacy scale, by percentage of students in public school eligible for free or reduced-price lunch: 2009

Percent of students eligible for free or reduced-price lunch	Score	s.e.
U.S. average	500	3.7
Less than 10 percent	551*	7.6
10 to 24.9 percent	527*	6.5
25 to 49.9 percent	502**	4.1
50 to 74.9 percent	471*	6.5
75 percent or more	446*	6.9
OECD average	493	0.5

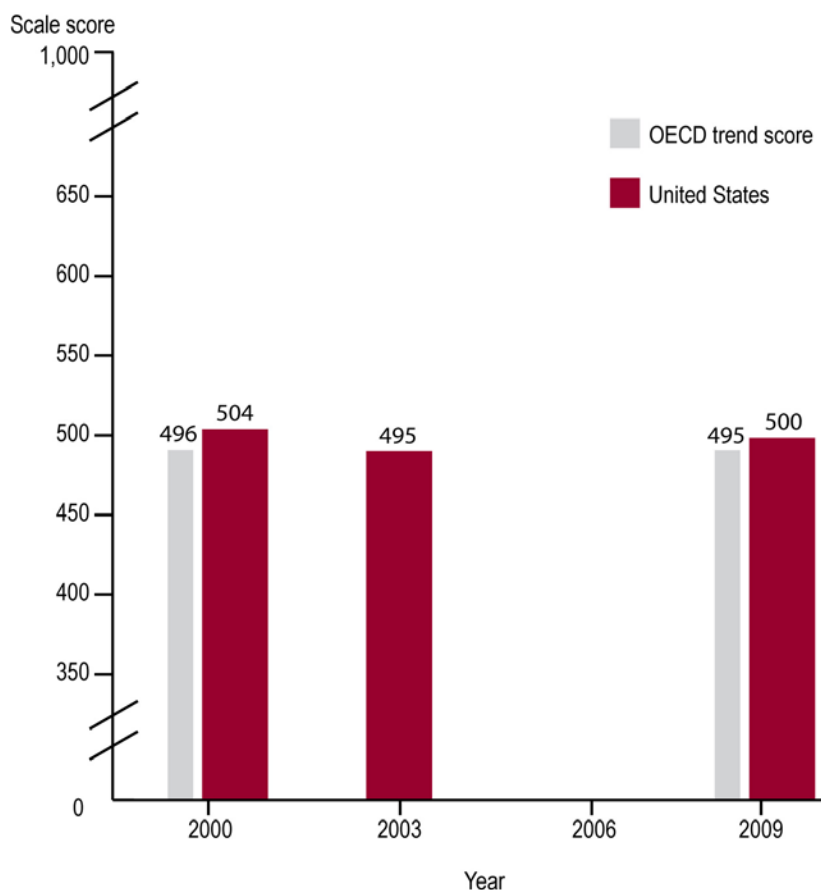
* $p < .05$. Significantly different from the U.S. and Organization for Economic Cooperation and Development (OECD) averages at the .05 level of statistical significance.

** $p < .05$. Significantly different from the OECD average at the .05 level of statistical significance, but not significantly different from the U.S. average.

NOTE: The National School Lunch Program provides free or reduced-price lunch for students meeting certain income guidelines. The percentage of students receiving such lunch is an indicator of the socioeconomic level of families served by the school. The OECD average is the average of the national averages of the OECD member countries, with each country weighted equally. Scores are reported on a scale from 0 to 1,000. Standard error is noted by s.e. Data are for public schools only.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Figure R2. Average scores of 15-year-old students in the United States and OECD countries on reading literacy scale: 2000, 2003, and 2009



NOTE: The Organization for Economic Cooperation and Development (OECD) trend scores are based on the averages of the 27 countries that participated in both the 2000 and 2009 assessments, met all technical standards, and that are currently members of the OECD. OECD trend scores are not reported for 2003 and 2006 because data were not available for all 27 comparable countries. The seven current OECD members not included in the OECD averages used to report on trends in reading literacy include the Slovak Republic and Turkey, which joined the Program for International Student Assessment (PISA) in 2003; Estonia and Slovenia, which joined PISA in 2006; Luxembourg, which experienced substantial changes in its assessment conditions between 2000 and 2003; and the Netherlands and the United Kingdom, which did not meet the PISA response-rate standards in 2000. PISA 2006 reading literacy results are not reported for the United States because of an error in printing the test booklets. For more details, see Baldi et al. 2007 (available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2008016>). Scores are reported on a scale from 0 to 1,000. There were no statistically significant differences between the U.S. average score and the OECD average score in 2000 or in 2009.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2000, 2003, and 2009.

Table R5. Average scores of 15-year-old students on reading literacy scale, by country: 2000, 2003, 2006, and 2009

Country	2000		2003		2006		2009	
	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.
OECD trend score ¹	496	0.7	—	†	—	†	495	0.5
<i>OECD countries</i>								
Australia	528	3.5	525	2.1	513	2.1	515	2.3
Austria	507	2.4	491	3.8	490	4.1	470	2.9
Belgium	507	3.6	507	2.6	501	3.0	506	2.3
Canada	534	1.6	528	1.7	527	2.4	524	1.5
Chile	410	3.6	—	†	442	5.0	449	3.1
Czech Republic	492	2.4	489	3.5	483	4.2	478	2.9
Denmark	497	2.4	492	2.8	494	3.2	495	2.1
Estonia	—	†	—	†	501	2.9	501	2.6
Finland	546	2.6	543	1.6	547	2.1	536	2.3
France	505	2.7	496	2.7	488	4.1	496	3.4
Germany	484	2.5	491	3.4	495	4.4	497	2.7
Greece	474	5.0	472	4.1	460	4.0	483	4.3
Hungary	480	4.0	482	2.5	482	3.3	494	3.2
Iceland	507	1.5	492	1.6	484	1.9	500	1.4
Ireland	527	3.2	515	2.6	517	3.5	496	3.0
Israel	452	8.5	—	†	439	4.6	474	3.6
Italy	487	2.9	476	3.0	469	2.4	486	1.6
Japan	522	5.2	498	3.9	498	3.6	520	3.5
Korea, Republic of	525	2.4	534	3.1	556	3.8	539	3.5
Luxembourg	441	1.6	479	1.5	479	1.3	472	1.3
Mexico	422	3.3	400	4.1	410	3.1	425	2.0
Netherlands ²	—	†	513	2.9	507	2.9	508	5.1
New Zealand	529	2.8	522	2.5	521	3.0	521	2.4
Norway	505	2.8	500	2.8	484	3.2	503	2.6
Poland	479	4.5	497	2.9	508	2.8	500	2.6
Portugal	470	4.5	478	3.7	472	3.6	489	3.1
Slovak Republic	—	†	469	3.1	466	3.1	477	2.5
Slovenia	—	†	—	†	494	1.0	483	1.0
Spain	493	2.7	481	2.6	461	2.2	481	2.0
Sweden	516	2.2	514	2.4	507	3.4	497	2.9
Switzerland	494	4.3	499	3.3	499	3.1	501	2.4
Turkey	—	†	441	5.8	447	4.2	464	3.5
United Kingdom ³	—	†	—	†	495	2.3	494	2.3
United States⁴	504	7.0	495	3.2	—	†	500	3.7

See notes at end of table.

Table R5. Average scores of 15-year-old students on reading literacy scale, by country: 2000, 2003, 2006, and 2009—Continued

Country	2000		2003		2006		2009	
	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.
<i>Non-OECD countries</i>								
Albania	349	3.3	—	†	—	†	385	4.0
Argentina	418	9.9	—	†	374	7.2	398	4.6
Azerbaijan	—	†	—	†	353	3.1	362	3.3
Brazil	396	3.1	403	4.6	393	3.7	412	2.7
Bulgaria	430	4.9	—	†	402	6.9	429	6.7
<i>Chinese Taipei</i>	—	†	—	†	496	3.4	495	2.6
Colombia	—	†	—	†	385	5.1	413	3.7
Croatia	—	†	—	†	477	2.8	476	2.9
<i>Dubai-UAE</i>	—	†	—	†	—	†	459	1.1
<i>Hong Kong-China</i>	525	2.9	510	3.7	536	2.4	533	2.1
Indonesia	371	4.0	382	3.4	393	5.9	402	3.7
Jordan	—	†	—	†	401	3.3	405	3.3
Kazakhstan	—	†	—	†	—	†	390	3.1
Kyrgyz Republic	—	†	—	†	285	3.5	314	3.2
Latvia	458	5.3	491	3.7	479	3.7	484	3.0
Liechtenstein	483	4.1	525	3.6	510	3.9	499	2.8
Lithuania	—	†	—	†	470	3.0	468	2.4
<i>Macao-China</i>	—	†	498	2.2	492	1.1	487	0.9
Macedonia	373	1.9	—	†	—	†	—	†
Montenegro, Republic of ⁵	—	†	412	3.6	392	1.2	408	1.7
Panama	—	†	—	†	—	†	371	6.5
Peru	327	4.4	—	†	—	†	370	4.0
Qatar	—	†	—	†	312	1.2	372	0.8
Romania ⁶	—	†	—	†	396	4.7	424	4.1
Russian Federation	462	4.2	442	3.9	440	4.3	459	3.3
Serbia, Republic of ⁵	—	†	412	3.6	401	3.5	442	2.4
<i>Shanghai-China</i>	—	†	—	†	—	†	556	2.4
Singapore	—	†	—	†	—	†	526	1.1
Thailand	431	3.2	420	2.8	417	2.6	421	2.6
Trinidad and Tobago	—	†	—	†	—	†	416	1.2
Tunisia	—	†	375	2.8	380	4.0	404	2.9
Uruguay	—	†	434	3.4	413	3.4	426	2.6

— Not available.

† Not applicable.

¹ The Organization for Economic Cooperation and Development (OECD) trend scores are based on the averages of the 27 countries that participated in both the 2000 and 2009 assessments, met all technical standards, and that are currently members of the OECD. The seven current OECD members not included in the OECD averages used to report on trends in reading literacy include the Slovak Republic and Turkey, which joined the Program for International Student Assessment (PISA) in 2003; Estonia and Slovenia, which joined PISA in 2006; Luxembourg, which experienced substantial changes in its assessment conditions between 2000 and 2003; and the Netherlands and the United Kingdom, which did not meet the PISA response-rate standards in 2000.

² Although the Netherlands participated in PISA 2000, technical problems with its sample prevent its results from being included.

³ Although the United Kingdom participated in 2000 and 2003, low response rates prevent its results from being included.

⁴ PISA 2006 reading literacy results are not reported for the United States because of an error in printing the test booklets. For more details, see Baldi et al. 2007 (available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2008016>).

⁵ The Republics of Montenegro and Serbia were a united country under the PISA 2003 assessment.

⁶ The 2000 results for Romania were not reported by OECD due to delayed submission of data. Romania did not participate in PISA in 2003.

NOTE: Because PISA is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries. Scores are reported on a scale from 0 to 1,000. Standard error is noted by s.e. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2000, 2003, 2006, and 2009.

**Table R6. Scores of 15-year-old students on combined reading literacy scale at selected percentiles, by country:
2009**

Country	Percentile													
	5 th		10 th		25 th		50 th		75 th		90 th		95 th	
	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.
OECD average	332	1.0	369	0.8	432	0.7	499	0.6	560	0.5	610	0.6	637	0.7
<i>OECD countries</i>														
Australia	343	3.8	384	3.1	450	2.9	521	2.4	584	2.7	638	3.2	668	3.9
Austria	299	5.2	334	6.1	399	4.3	476	3.8	545	3.3	596	3.4	625	4.3
Belgium	326	6.1	368	4.3	436	3.8	516	2.9	583	2.2	631	2.7	657	2.9
Canada	368	2.9	406	2.7	464	1.9	529	1.8	588	1.7	637	1.9	664	2.1
Chile	310	5.1	342	5.0	393	4.1	451	3.4	506	3.3	556	3.6	584	5.1
Czech Republic	325	4.8	357	4.9	413	4.2	479	3.3	545	3.3	598	3.2	627	3.6
Denmark	350	3.8	383	3.7	440	2.9	500	2.3	554	2.8	599	3.0	624	2.9
Estonia	359	5.3	392	4.4	446	3.3	504	2.9	559	2.8	605	3.6	633	4.1
Finland	382	3.4	419	3.6	481	2.7	542	2.9	597	2.2	642	2.6	666	2.6
France	305	8.2	352	7.0	429	4.7	505	3.8	572	4.0	624	3.9	651	4.6
Germany	333	4.8	367	5.1	432	4.5	505	3.3	567	2.8	615	3.2	640	3.1
Greece	318	7.8	355	8.0	420	6.3	488	4.4	550	3.1	601	3.7	630	3.7
Hungary	332	7.4	371	6.9	435	4.3	501	3.5	559	3.6	607	3.5	632	4.0
Iceland	331	4.9	371	4.1	439	2.9	507	1.8	567	2.0	619	2.6	648	3.9
Ireland	330	7.8	373	4.7	435	3.9	503	3.5	562	2.8	611	2.8	638	3.2
Israel	277	8.8	322	7.8	401	4.4	483	3.9	554	3.4	611	4.0	643	4.3
Italy	320	3.7	358	2.6	422	2.3	493	2.0	556	1.7	604	1.7	631	2.1
Japan	339	9.8	386	7.1	459	4.8	530	3.2	590	3.0	639	3.6	667	4.6
Korea, Republic of	400	7.6	435	5.9	490	4.1	545	3.7	595	3.4	635	3.0	658	3.8
Luxembourg	288	3.6	332	3.5	403	2.4	480	1.8	547	1.7	600	2.0	630	3.7
Mexico	281	3.9	314	2.9	370	2.4	429	2.1	485	1.9	531	2.2	557	2.4
Netherlands	365	4.7	390	5.0	442	6.1	510	7.0	575	5.4	625	4.6	650	4.0
New Zealand	344	5.8	383	4.5	452	3.1	528	3.0	595	2.8	649	2.7	678	3.7
Norway	346	4.5	382	4.0	443	3.6	507	3.0	568	2.9	619	3.9	647	4.4
Poland	346	5.6	382	4.2	441	3.4	504	2.7	565	3.2	613	3.3	640	3.6
Portugal	338	4.8	373	4.9	432	4.4	493	3.6	551	3.4	599	3.5	624	3.6
Slovak Republic	324	6.1	358	5.2	416	4.1	480	3.3	543	2.7	594	3.2	621	4.3
Slovenia	326	2.9	359	2.1	421	1.9	488	1.8	550	1.7	598	2.9	623	3.9
Spain	326	4.2	364	3.5	426	3.3	488	2.5	543	2.0	588	2.0	613	2.4
Sweden	326	5.3	368	5.5	437	3.3	502	2.8	565	3.1	620	3.7	651	3.9
Switzerland	337	4.1	374	4.0	437	3.6	506	2.6	569	3.1	617	3.3	645	4.4
Turkey	325	5.1	356	4.3	409	3.8	466	3.6	522	4.5	569	5.2	596	5.4
United Kingdom	334	4.1	370	3.1	430	2.8	497	3.0	561	3.2	616	2.6	646	3.7
United States	339	4.2	372	3.9	433	4.0	501	4.2	569	4.6	625	5.0	656	5.8

See notes at end of table.

Table R6. Scores of 15-year-old students on combined reading literacy scale at selected percentiles, by country: 2009—Continued

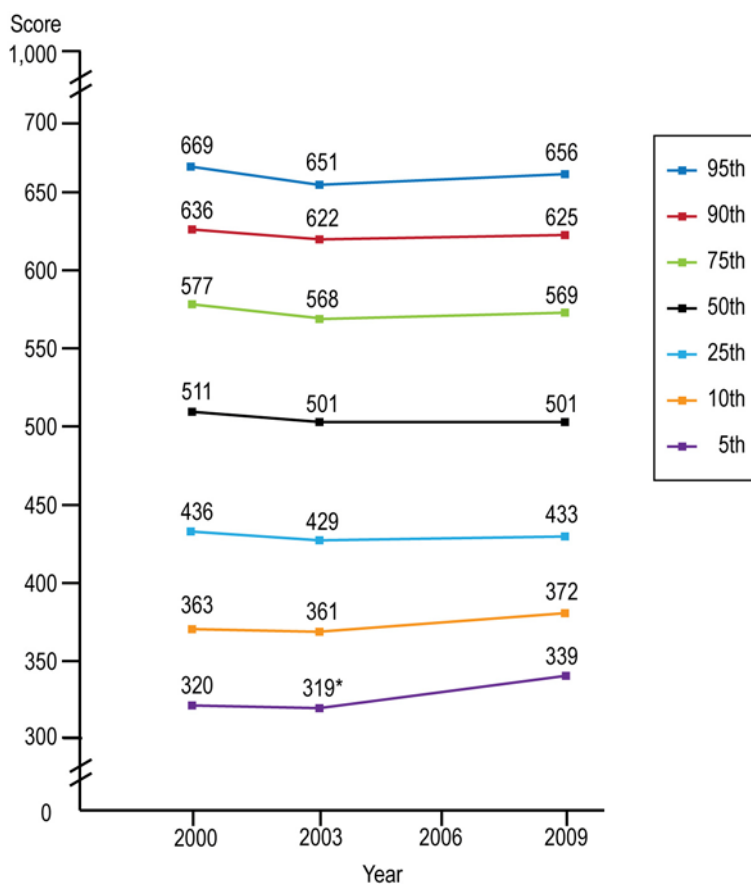
Country	Percentile													
	5 th		10 th		25 th		50 th		75 th		90 th		95 th	
	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.
<i>Non-OECD countries</i>														
Albania	212	6.9	254	5.4	319	4.9	389	4.8	458	4.8	509	4.9	538	5.5
Argentina	209	11.3	257	8.3	329	5.8	403	5.3	473	6.3	535	7.1	568	6.7
Azerbaijan	235	5.7	263	4.7	311	4.3	363	3.7	413	4.0	458	4.4	485	6.2
Brazil	262	3.0	293	3.2	348	2.7	409	3.2	474	3.9	537	4.2	572	4.6
Bulgaria	234	8.4	276	7.8	351	8.5	436	8.5	512	6.5	572	7.3	603	6.7
<i>Chinese Taipei</i>	343	4.7	380	3.9	439	3.2	502	2.7	555	2.9	600	4.6	627	6.3
Colombia	269	6.4	302	5.2	355	4.4	414	4.3	473	3.9	524	4.1	554	4.0
Croatia	327	4.9	359	3.6	416	4.5	481	3.5	539	3.1	586	3.5	611	3.8
<i>Dubai-UAE</i>	277	3.4	317	2.8	386	2.4	463	1.5	536	2.4	596	2.7	628	3.1
<i>Hong Kong-China</i>	380	5.5	418	4.5	482	3.1	541	2.3	592	2.5	634	2.9	659	3.1
Indonesia	291	5.8	315	5.0	357	4.1	402	3.6	447	4.6	487	5.0	510	5.8
Jordan	243	6.6	284	5.0	350	4.1	412	3.8	468	3.5	515	3.9	542	4.7
Kazakhstan	245	3.8	275	3.8	327	3.1	387	3.8	452	4.2	513	5.0	545	5.2
Kyrgyz Republic	155	5.6	190	4.7	249	4.1	312	2.9	377	4.2	441	6.4	483	7.5
Latvia	348	6.3	379	4.2	429	3.8	488	3.7	541	3.3	584	3.2	610	4.3
Liechtenstein	355	12.1	385	10.6	442	6.5	508	5.5	560	4.5	600	8.4	626	11.8
Lithuania	324	4.5	353	4.1	409	3.3	471	2.5	530	3.1	580	3.4	608	4.1
<i>Macao-China</i>	357	2.7	388	1.8	437	1.4	489	1.2	540	1.4	582	1.8	608	1.8
Montenegro, Republic of	254	4.2	288	3.8	345	2.6	409	2.5	473	2.4	526	2.7	558	4.1
Panama	209	12.0	246	10.0	304	7.4	368	7.2	436	7.7	502	9.3	540	10.0
Peru	209	5.0	241	3.9	302	4.3	370	4.2	437	5.2	496	6.4	530	7.0
Qatar	196	2.4	228	2.2	288	1.4	365	1.6	450	1.4	529	2.1	573	2.8
Romania	271	6.9	304	5.7	365	6.0	429	4.7	488	4.7	537	4.0	564	4.6
Russian Federation	310	5.8	344	5.5	401	3.6	461	3.3	519	3.2	572	4.5	607	5.6
Serbia, Republic of	299	4.9	331	3.8	388	3.2	446	2.9	501	2.5	547	2.7	573	3.3
<i>Shanghai-China</i>	417	5.2	450	4.8	504	3.5	562	2.8	613	2.8	654	2.7	679	3.3
Singapore	357	3.4	394	3.1	460	2.0	532	2.1	597	2.1	648	2.8	676	2.7
Thailand	305	4.9	331	3.8	373	3.2	420	3.0	469	2.6	514	4.0	542	5.5
Trinidad and Tobago	220	5.8	265	3.9	339	2.5	423	2.0	496	2.3	559	2.5	594	3.0
Tunisia	258	4.4	293	3.8	348	3.4	407	3.2	462	3.4	510	4.8	538	5.2
Uruguay	257	5.2	297	4.2	359	3.5	428	3.2	495	3.1	552	3.3	584	4.5

NOTE: This table shows the threshold (or cut point) score for the following: (a) 5th percentile – the bottom 5 percent of students; (b) 10th percentile – the bottom 10 percent of students; (c) 25th percentile – the bottom quarter of students; (d) 50th percentile – the median (half the students scored below the cut point and half scored above it); (e) 75th percentile – the top quarter of students; (f) 90th percentile – the top 10 percent of students; and (g) 95th percentile – the top 5 percent of students.

The percentile ranges are specific to each country's distribution of scores and to each assessment administration, enabling users to compare scores at the cut points across countries and over time. The Organization for Economic Cooperation and Development (OECD) average is the average of the national averages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries. Scores are reported on a scale from 0 to 1,000. Standard error is noted by s.e. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Figure R3. Scores of U.S. 15-year-old students on combined reading literacy scale at selected percentiles: 2000, 2003, and 2009



* $p < .05$. Significantly different from the 2009 score at the .05 level of statistical significance.

NOTE: This figure shows the threshold (or cut point) score for the following: (a) 5th percentile – the bottom 5 percent of students; (b) 10th percentile – the bottom 10 percent of students; (c) 25th percentile – the bottom quarter of students; (d) 50th percentile – the median (half the students scored below the cut point and half scored above it); (e) 75th percentile – the top quarter of students; (f) 90th percentile – the top 10 percent of students; and (g) 95th percentile – the top 5 percent of students. The percentile ranges are specific to each country's distribution of scores and to each assessment administration, enabling users to compare scores at the cut points across countries and over time. The Program for International Student Assessment (PISA) 2006 reading literacy results are not reported for the United States because of an error in printing the test booklets. For more details, see Baldi et al. 2007 (available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2008016>). Scores are reported on a scale from 0 to 1,000.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2000, 2003, and 2009.

Table R6A. Scores of U.S. 15-year-old students on combined reading literacy scale at selected percentiles: 2000, 2003, and 2009

Selected percentiles	2000		2003		2009	
	Score	s.e.	Score	s.e.	Score	s.e.
95th percentile	669	6.8	651	4.5	656	5.8
90th percentile	636	6.5	622	3.5	625	5.0
75th percentile	577	6.8	568	3.6	569	4.6
50th percentile	511	7.0	501	3.6	501	4.2
25th percentile	436	8.8	429	4.1	433	4.0
10th percentile	363	11.4	361	5.2	372	3.9
5th percentile	320	11.7	319*	6.6	339	4.2
Mean	504	7.1	495	3.2	500	3.7

* $p < .05$. Significantly different from the 2009 score at the .05 level of statistical significance.

NOTE: This table shows the threshold (or cut point) score for the following: (a) 5th percentile – the bottom 5 percent of students; (b) 10th percentile – the bottom 10 percent of students; (c) 25th percentile – the bottom quarter of students; (d) 50th percentile – the median (half the students scored below the cut point and half scored above it); (e) 75th percentile – the top quarter of students; (f) 90th percentile – the top 10 percent of students; and (g) 95th percentile – the top 5 percent of students. The percentile ranges are specific to each country's distribution of scores and to each assessment administration, enabling users to compare scores at the cut points across countries and over time. The Program for International Student Assessment (PISA) 2006 reading literacy results are not reported for the United States because of an error in printing the test booklets. For more details, see Baldi et al. 2007 (available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2008016>). Scores are reported on a scale from 0 to 1,000. Standard error is noted by s.e.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2000, 2003, and 2009.

Table R7. Percentage distribution of 15-year-old students on combined reading literacy scale, by proficiency level and country: 2009

Country	Below level 1b		Level 1b		Level 1a		Level 2	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
OECD average	1.1	0.05	4.6	0.08	13.1	0.13	24.0	0.16
<i>OECD countries</i>								
Australia	1.0	0.12	3.3	0.27	10.0	0.39	20.4	0.57
Austria	1.9	0.42	8.1	0.81	17.5	0.99	24.1	0.96
Belgium	1.1	0.25	4.7	0.46	11.9	0.64	20.3	0.67
Canada	0.4	0.06	2.0	0.19	7.9	0.34	20.2	0.61
Chile	1.3	0.24	7.4	0.77	21.9	0.95	33.2	1.11
Czech Republic	0.8!	0.29	5.5	0.60	16.8	1.06	27.4	0.99
Denmark	0.4	0.11	3.1	0.30	11.7	0.72	26.0	0.94
Estonia	0.3!	0.13	2.4	0.38	10.6	0.86	25.6	1.26
Finland	0.2	0.07	1.5	0.20	6.4	0.44	16.7	0.62
France	2.3	0.52	5.6	0.53	11.8	0.84	21.1	1.03
Germany	0.8	0.23	4.4	0.46	13.3	0.79	22.2	0.87
Greece	1.4	0.38	5.6	0.86	14.3	1.07	25.6	1.06
Hungary	0.6!	0.23	4.7	0.82	12.3	0.95	23.8	1.24
Iceland	1.1	0.18	4.2	0.43	11.5	0.71	22.2	0.80
Ireland	1.5	0.36	3.9	0.47	11.8	0.71	23.3	1.00
Israel	3.9	0.66	8.0	0.66	14.7	0.63	22.5	0.96
Italy	1.4	0.23	5.2	0.32	14.4	0.45	24.0	0.54
Japan	1.3	0.36	3.4	0.49	8.9	0.66	18.0	0.84
Korea, Republic of	‡	†	0.9!	0.30	4.7	0.63	15.4	1.01
Luxembourg	3.1	0.27	7.3	0.45	15.7	0.59	24.0	0.70
Mexico	3.2	0.34	11.4	0.48	25.5	0.56	33.0	0.57
Netherlands	‡	†	1.8	0.31	12.5	1.36	24.7	1.53
New Zealand	0.9	0.22	3.2	0.45	10.2	0.58	19.3	0.75
Norway	0.5	0.14	3.4	0.39	11.0	0.66	23.6	0.84
Poland	0.6	0.15	3.1	0.35	11.3	0.66	24.5	1.08
Portugal	0.6	0.14	4.0	0.41	13.0	0.97	26.4	1.09
Slovak Republic	0.8!	0.28	5.6	0.62	15.9	0.83	28.1	1.04
Slovenia	0.8	0.09	5.2	0.34	15.2	0.49	25.6	0.71
Spain	1.2	0.18	4.7	0.39	13.6	0.64	26.8	0.84
Sweden	1.5	0.25	4.3	0.38	11.7	0.71	23.5	0.99
Switzerland	0.7	0.15	4.1	0.38	12.1	0.62	22.7	0.70
Turkey	0.8	0.19	5.6	0.63	18.1	0.98	32.2	1.16
United Kingdom	1.0	0.20	4.1	0.35	13.4	0.64	24.9	0.72
United States	0.6	0.13	4.0	0.45	13.1	0.84	24.4	0.86

See notes at end of table.

Table R7. Percentage distribution of 15-year-old students on combined reading literacy scale, by proficiency level and country: 2009—Continued

Country	Level 3		Level 4		Level 5		Level 6	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
OECD average	28.9	0.16	20.7	0.16	6.8	0.10	0.8	0.03
<i>OECD countries</i>								
Australia	28.5	0.73	24.1	0.65	10.7	0.54	2.1	0.31
Austria	26.0	0.92	17.4	0.85	4.5	0.45	0.4!	0.13
Belgium	25.8	0.85	24.9	0.75	10.1	0.51	1.1	0.19
Canada	30.0	0.69	26.8	0.58	11.0	0.41	1.8	0.17
Chile	25.6	1.15	9.3	0.71	1.3	0.25	#	†
Czech Republic	27.0	1.00	17.4	0.97	4.7	0.45	0.4!	0.12
Denmark	33.1	1.21	20.9	1.11	4.4	0.45	0.3!	0.12
Estonia	33.8	1.00	21.2	0.81	5.4	0.52	0.6!	0.20
Finland	30.1	0.85	30.6	0.88	12.9	0.74	1.6	0.24
France	27.2	1.04	22.4	1.07	8.5	0.83	1.1	0.25
Germany	28.8	1.09	22.8	0.88	7.0	0.57	0.6	0.15
Greece	29.3	1.20	18.2	0.98	5.0	0.54	0.6	0.17
Hungary	31.0	1.25	21.6	1.11	5.8	0.67	0.3!	0.13
Iceland	30.6	0.94	21.9	0.84	7.5	0.62	1.0	0.19
Ireland	30.6	0.91	21.9	0.91	6.3	0.50	0.7!	0.22
Israel	25.5	0.95	18.1	0.73	6.4	0.54	1.0	0.16
Italy	28.9	0.55	20.2	0.48	5.4	0.30	0.4	0.10
Japan	28.0	0.88	27.0	0.95	11.5	0.71	1.9	0.36
Korea, Republic of	33.0	1.23	32.9	1.42	11.9	0.96	1.0	0.20
Luxembourg	27.0	0.65	17.3	0.61	5.2	0.43	0.5!	0.15
Mexico	21.2	0.59	5.3	0.39	0.4	0.07	#	†
Netherlands	27.6	1.24	23.5	1.66	9.1	1.00	0.7	0.22
New Zealand	25.8	0.76	24.8	0.81	12.9	0.76	2.9	0.38
Norway	30.9	0.86	22.1	1.16	7.6	0.87	0.8	0.20
Poland	31.0	0.98	22.3	0.99	6.5	0.55	0.7	0.15
Portugal	31.6	1.09	19.6	0.92	4.6	0.48	0.2!	0.10
Slovak Republic	28.5	1.14	16.7	0.79	4.2	0.48	0.3!	0.11
Slovenia	29.2	0.86	19.3	0.80	4.3	0.54	0.3!	0.12
Spain	32.6	0.95	17.7	0.68	3.2	0.29	±	†
Sweden	29.8	0.98	20.3	0.92	7.7	0.59	1.3	0.25
Switzerland	29.7	0.78	22.6	0.82	7.4	0.68	0.7!	0.22
Turkey	29.1	1.07	12.4	1.11	1.8	0.38	#	†
United Kingdom	28.8	0.84	19.8	0.79	7.0	0.47	1.0	0.19
United States	27.6	0.83	20.6	0.90	8.4	0.75	1.5	0.42

See notes at end of table.

Table R7. Percentage distribution of 15-year-old students on combined reading literacy scale, by proficiency level and country: 2009—Continued

Country	Below level 1b		Level 1b		Level 1a		Level 2	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
<i>Non-OECD countries</i>								
Albania	11.3	0.92	18.7	1.32	26.6	1.18	25.6	1.33
Argentina	10.8	1.10	15.8	1.25	25.0	1.30	25.4	1.22
Azerbaijan	9.7	1.05	26.1	1.14	36.9	1.21	21.5	1.17
Brazil	5.0	0.38	16.0	0.67	28.6	0.81	27.1	0.78
Bulgaria	8.0	1.09	12.9	1.36	20.1	1.35	23.4	1.15
<i>Chinese Taipei</i>	0.7	0.18	3.5	0.35	11.4	0.63	24.6	0.80
Colombia	4.2	0.71	13.9	0.99	29.0	1.22	30.6	1.11
Croatia	1.0	0.21	5.0	0.45	16.5	0.97	27.4	1.02
<i>Dubai-UAE</i>	3.7	0.23	9.4	0.45	17.9	0.50	25.4	0.71
<i>Hong Kong-China</i>	0.2!	0.08	1.5	0.30	6.6	0.59	16.1	0.75
Indonesia	1.7	0.38	14.1	1.31	37.6	1.64	34.3	1.38
Jordan	6.9	0.62	13.6	0.78	27.6	0.96	31.8	0.98
Kazakhstan	7.5	0.65	20.4	0.99	30.7	0.88	24.1	0.93
Kyrgyz Republic	29.8	1.25	29.7	0.91	23.8	0.94	11.5	0.83
Latvia	0.4!	0.15	3.3	0.57	13.9	1.00	28.8	1.45
Liechtenstein	#	†	2.8!	1.15	12.8	1.83	24.0	2.85
Lithuania	0.9	0.26	5.5	0.56	17.9	0.87	30.0	1.03
<i>Macao-China</i>	0.3!	0.09	2.6	0.25	12.0	0.43	30.6	0.63
Montenegro, Republic of	5.9	0.53	15.8	0.80	27.8	0.81	28.0	0.88
Panama	13.3	1.83	23.1	1.78	28.9	1.79	20.7	1.43
Peru	14.1	0.93	22.0	1.01	28.7	1.10	22.1	0.94
Qatar	17.8	0.33	22.4	0.48	23.2	0.63	18.3	0.44
Romania	4.1	0.69	12.7	1.08	23.6	1.25	31.6	1.31
Russian Federation	1.6	0.35	6.8	0.58	19.0	0.79	31.6	0.97
Serbia, Republic of	2.0	0.36	8.8	0.67	22.1	0.87	33.2	1.02
<i>Shanghai-China</i>	0.1!	0.04	0.6	0.14	3.4	0.47	13.3	0.86
Singapore	0.4	0.11	2.7	0.26	9.3	0.50	18.5	0.60
Thailand	1.2	0.29	9.9	0.82	31.7	1.12	36.8	1.15
Trinidad and Tobago	9.6	0.51	14.2	0.61	21.0	0.81	25.0	0.94
Tunisia	5.5	0.52	15.0	0.78	29.6	1.10	31.5	1.22
Uruguay	5.5	0.58	12.5	0.68	23.9	0.70	28.0	0.73

See notes at end of table.

Table R7. Percentage distribution of 15-year-old students on combined reading literacy scale, by proficiency level and country: 2009—Continued

Country	Level 3		Level 4		Level 5		Level 6	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
<i>Non-OECD countries</i>								
Albania	14.4	1.18	3.1	0.48	‡	†	#	†
Argentina	16.0	1.04	6.0	0.83	0.9	0.23	‡	†
Azerbaijan	5.3	0.77	0.5!	0.15	#	†	#	†
Brazil	15.9	0.86	6.1	0.53	1.2	0.21	‡	†
Bulgaria	21.8	1.43	11.0	1.14	2.6	0.50	0.2!	0.08
<i>Chinese Taipei</i>	33.5	1.09	21.0	0.97	4.8	0.76	0.4!	0.20
Colombia	17.1	1.03	4.6	0.48	0.5!	0.16	#	†
Croatia	30.6	1.21	16.4	0.97	3.1	0.40	‡	†
<i>Dubai-UAE</i>	23.5	0.77	14.8	0.71	4.8	0.49	0.5!	0.18
<i>Hong Kong-China</i>	31.4	0.90	31.8	0.89	11.2	0.70	1.2	0.26
Indonesia	11.2	1.35	1.0!	0.34	#	†	#	†
Jordan	16.5	0.99	3.4	0.44	0.2!	0.09	#	†
Kazakhstan	13.1	0.87	3.7	0.49	0.4!	0.12	#	†
Kyrgyz Republic	4.2	0.57	1.0	0.28	‡	†	#	†
Latvia	33.5	1.21	17.2	1.01	2.9	0.44	‡	†
Liechtenstein	31.1	2.76	24.6	2.34	4.2!	1.39	‡	†
Lithuania	28.6	0.94	14.1	0.80	2.8	0.38	0.1!	0.06
<i>Macao-China</i>	34.8	0.67	16.9	0.50	2.8	0.25	‡	†
Montenegro, Republic of	16.8	0.85	5.0	0.46	0.6	0.17	#	†
Panama	10.1	1.36	3.4	0.68	0.5!	0.23	#	†
Peru	10.1	0.86	2.6	0.51	0.4!	0.21	#	†
Qatar	11.1	0.48	5.4	0.27	1.5	0.16	0.2!	0.07
Romania	21.2	1.31	6.1	0.71	0.7	0.17	#	†
Russian Federation	26.8	0.88	11.1	0.66	2.8	0.43	0.3!	0.11
Serbia, Republic of	25.3	0.96	7.9	0.56	0.8	0.16	#	†
<i>Shanghai-China</i>	28.5	1.16	34.7	1.04	17.0	0.99	2.4	0.45
Singapore	27.6	0.81	25.7	0.73	13.1	0.54	2.6	0.34
Thailand	16.7	0.82	3.3	0.52	‡	†	#	†
Trinidad and Tobago	19.0	0.86	8.9	0.51	2.1	0.27	0.2!	0.07
Tunisia	15.1	1.04	3.1	0.52	‡	†	#	†
Uruguay	20.3	0.73	8.1	0.51	1.7	0.26	‡	†

† Not applicable.

Rounds to zero.

! Interpret data with caution.

‡ Reporting standards not met.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into reading literacy levels according to their scores. Exact cut point scores are as follows: below level 1b (a score less than or equal to 262.04); level 1b (a score greater than 262.04 and less than or equal to 334.75); level 1a (a score greater than 334.75 and less than or equal to 407.47); level 2 (a score greater than 407.47 and less than or equal to 480.18); level 3 (a score greater than 480.18 and less than or equal to 552.89); level 4 (a score greater than 552.89 and less than or equal to 625.61); level 5 (a score greater than 625.61 and less than or equal to 698.32); and level 6 (a score greater than 698.32). Scores are reported on a scale from 0 to 1,000. The Organization for Economic Cooperation and Development (OECD) average is the average of the national percentages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries. Standard error is noted by s.e. Detail may not sum to totals because of rounding. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table R7A. Percentage of 15-year-old students on combined reading literacy scale within selected proficiency level ranges, by country: 2009

Country	Below level 2		Level 4 and above		Level 5 and above	
	Percent	s.e.	Percent	s.e.	Percent	s.e.
OECD average	18.8	0.18	28.3	0.20	7.6*	0.11
<i>OECD countries</i>						
Australia	14.2*	0.58	36.8*	0.98	12.8*	0.77
Austria	27.6*	1.28	22.3*	1.09	4.9*	0.50
Belgium	17.7	0.90	36.1*	0.93	11.2	0.58
Canada	10.3*	0.46	39.5*	0.76	12.8*	0.48
Chile	30.6*	1.53	10.6*	0.86	1.3*	0.25
Czech Republic	23.1*	1.32	22.5*	1.09	5.1*	0.45
Denmark	15.2	0.88	25.7*	1.16	4.7*	0.47
Estonia	13.3*	1.03	27.3	1.10	6.1*	0.61
Finland	8.1*	0.52	45.1*	1.23	14.5*	0.76
France	19.8	1.20	31.9	1.42	9.6	0.96
Germany	18.5	1.07	30.5	1.14	7.6*	0.62
Greece	21.3	1.82	23.8*	1.14	5.6*	0.54
Hungary	17.6	1.39	27.6	1.45	6.1*	0.69
Iceland	16.8	0.64	30.4	0.77	8.5	0.59
Ireland	17.2	1.05	28.9	1.16	7.0*	0.53
Israel	26.5*	1.23	25.5*	1.14	7.4*	0.62
Italy	21.0*	0.59	26.1*	0.63	5.8*	0.30
Japan	13.6*	1.14	40.4*	1.28	13.4*	0.86
Korea, Republic of	5.8*	0.84	45.8*	1.99	12.9*	1.08
Luxembourg	26.0*	0.64	23.0*	0.54	5.7*	0.45
Mexico	40.1*	0.97	5.7*	0.40	0.4*	0.07
Netherlands	14.3	1.54	33.3	2.33	9.8	1.08
New Zealand	14.3*	0.75	40.6*	0.97	15.7*	0.81
Norway	15.0	0.83	30.5	1.16	8.4	0.90
Poland	15.0	0.84	29.5	1.26	7.2*	0.58
Portugal	17.6	1.21	24.4*	1.17	4.8*	0.53
Slovak Republic	22.2*	1.18	21.2*	0.92	4.5*	0.51
Slovenia	21.2*	0.58	23.9*	0.67	4.6*	0.53
Spain	19.6	0.88	21.0*	0.74	3.3*	0.26
Sweden	17.4	0.94	29.3	1.20	9.0	0.69
Switzerland	16.8	0.86	30.8	1.08	8.1	0.73
Turkey	24.5*	1.39	14.2*	1.38	1.9*	0.38
United Kingdom	18.4	0.76	27.9	0.98	8.0	0.51
United States	17.6	1.05	30.4	1.49	9.9	0.92

See notes at end of table.

Table R7A. Percentage of 15-year-old students on combined reading literacy scale within selected proficiency level ranges, by country: 2009—Continued

Country	Below level 2		Level 4 and above		Level 5 and above	
	Percent	s.e.	Percent	s.e.	Percent	s.e.
<i>Non-OECD countries</i>						
Albania	56.7*	1.87	3.3*	0.51	‡	†
Argentina	51.6*	1.93	7.0*	0.96	1.0	0.24
Azerbaijan	72.8*	1.62	0.5!*	0.16	#	†
Brazil	49.6*	1.28	7.4*	0.66	1.3*	0.22
Bulgaria	41.0*	2.61	13.7*	1.49	2.8*	0.51
<i>Chinese Taipei</i>	15.6	0.87	26.2*	1.27	5.2*	0.85
Colombia	47.1*	1.94	5.2*	0.56	0.6!*	0.17
Croatia	22.4*	1.27	19.6*	1.11	3.2*	0.43
<i>Dubai-UAE</i>	31.0*	0.52	20.1*	0.57	5.3*	0.45
<i>Hong Kong-China</i>	8.3*	0.69	44.3*	1.11	12.4*	0.75
Indonesia	53.4*	2.28	1.0!*	0.34	#	†
Jordan	48.0*	1.60	3.7*	0.49	0.2!*	0.09
Kazakhstan	58.7*	1.50	4.1*	0.54	0.4!*	0.12
Kyrgyz Republic	83.2*	1.19	1.1*	0.28	‡	†
Latvia	17.6	1.23	20.1*	1.28	2.9*	0.44
Liechtenstein	15.7	1.80	29.3	2.52	4.6!*	1.44
Lithuania	24.4*	1.15	17.0*	0.92	2.9*	0.40
<i>Macao-China</i>	14.9*	0.52	19.7*	0.50	2.9*	0.24
Montenegro, Republic of	49.5*	0.97	5.6*	0.44	0.6*	0.17
Panama	65.3*	2.60	3.9*	0.72	0.5!*	0.23
Peru	64.8*	1.70	3.1*	0.62	0.5!*	0.21
Qatar	63.5*	0.46	7.1*	0.27	1.7*	0.16
Romania	40.4*	2.02	6.8*	0.78	0.7*	0.17
Russian Federation	27.4*	1.34	14.3*	0.94	3.2*	0.48
Serbia, Republic of	32.8*	1.25	8.7*	0.62	0.8*	0.16
<i>Shanghai-China</i>	4.1*	0.54	54.2*	1.31	19.5*	1.09
Singapore	12.5*	0.47	41.4*	0.76	15.7*	0.52
Thailand	42.9*	1.53	3.6*	0.64	‡	†
Trinidad and Tobago	44.8*	0.67	11.2*	0.47	2.3*	0.28
Tunisia	50.2*	1.55	3.3*	0.60	‡	†
Uruguay	41.9*	1.16	9.9*	0.63	1.8*	0.27

† Not applicable.

Rounds to zero.

! Interpret data with caution.

‡ Reporting standards not met.

* $p < .05$. Significantly different from the U.S. average at the .05 level of statistical significance.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into reading literacy levels according to their scores. Exact cut point scores are as follows: below level 1b (a score less than or equal to 262.04); level 1b (a score greater than 262.04 and less than or equal to 334.75); level 1a (a score greater than 334.75 and less than or equal to 407.47); level 2 (a score greater than 407.47 and less than or equal to 480.18); level 3 (a score greater than 480.18 and less than or equal to 552.89); level 4 (a score greater than 552.89 and less than or equal to 625.61); level 5 (a score greater than 625.61 and less than or equal to 698.32); and level 6 (a score greater than 698.32). Scores are reported on a scale from 0 to 1,000. The Organization for Economic Cooperation and Development (OECD) average is the average of the national percentages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries. Standard error is noted by s.e. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table R8. Percentage distribution of 15-year-old students on the access and retrieve reading literacy subscale, by proficiency level and country: 2009

Country	Below level 1b		Level 1b		Level 1a		Level 2	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
OECD average	2.0	0.06	5.0	0.08	12.6	0.13	22.4	0.15
<i>OECD countries</i>								
Australia	1.3	0.14	3.5	0.26	9.7	0.49	19.8	0.56
Austria	2.7	0.39	8.2	0.68	15.7	1.12	22.5	1.24
Belgium	1.7	0.26	4.3	0.44	10.9	0.62	18.6	0.62
Canada	0.9	0.10	2.7	0.21	9.0	0.36	20.7	0.59
Chile	2.7	0.45	8.6	0.74	22.2	1.23	31.6	1.00
Czech Republic	1.6	0.37	6.3	0.71	15.7	0.75	25.8	0.87
Denmark	1.0	0.17	3.7	0.39	11.6	0.64	22.4	0.71
Estonia	0.6!	0.20	3.3	0.46	11.4	0.78	23.5	1.00
Finland	0.8	0.15	2.5	0.27	7.8	0.54	17.2	0.95
France	3.0	0.60	5.5	0.58	12.5	0.88	21.8	0.99
Germany	1.5	0.33	5.4	0.61	12.8	0.83	20.6	0.96
Greece	3.3	0.68	7.5	0.86	16.0	0.81	25.3	0.81
Hungary	2.1	0.52	4.7	0.60	10.8	0.77	21.0	0.94
Iceland	2.0	0.23	4.5	0.32	11.2	0.65	19.6	0.78
Ireland	2.2	0.46	3.7	0.43	10.6	0.66	22.6	0.94
Israel	6.2	0.93	8.8	0.57	15.2	0.76	21.8	0.89
Italy	2.8	0.28	6.3	0.33	13.9	0.39	22.9	0.48
Japan	1.9	0.42	3.2	0.48	8.0	0.67	16.2	0.70
Korea, Republic of	‡	†	1.2	0.32	5.5	0.67	15.9	0.99
Luxembourg	4.7	0.36	7.6	0.40	15.6	0.60	22.4	0.86
Mexico	4.3	0.38	10.3	0.44	22.8	0.58	30.7	0.59
Netherlands	0.2!	0.10	2.1	0.43	10.0	0.95	21.4	1.69
New Zealand	1.3	0.22	3.4	0.35	10.0	0.59	18.4	0.67
Norway	1.0	0.23	3.5	0.41	10.2	0.64	20.5	0.75
Poland	1.5	0.25	4.3	0.42	11.9	0.74	22.7	0.79
Portugal	1.2	0.20	4.6	0.52	12.8	0.80	25.7	1.16
Slovak Republic	1.8	0.39	5.6	0.57	13.1	0.73	23.2	0.97
Slovenia	1.8	0.14	5.5	0.38	12.8	0.68	23.3	0.65
Spain	2.5	0.29	5.5	0.36	13.7	0.60	25.4	0.72
Sweden	1.8	0.32	4.4	0.54	10.3	0.70	21.5	0.83
Switzerland	1.0	0.16	4.3	0.43	11.0	0.61	21.1	0.72
Turkey	2.3	0.51	6.4	0.58	16.6	0.93	28.8	1.14
United Kingdom	1.7	0.25	4.8	0.40	13.6	0.63	23.4	0.87
United States	1.2	0.26	4.9	0.44	13.8	0.83	24.8	0.76

See notes at end of table.

Table R8. Percentage distribution of 15-year-old students on the access and retrieve reading literacy subscale, by proficiency level and country: 2009—Continued

Country	Level 3		Level 4		Level 5		Level 6	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
OECD average	27.5	0.16	20.9	0.16	8.1	0.11	1.4	0.05
<i>OECD countries</i>								
Australia	29.0	0.61	24.5	0.58	10.2	0.55	2.0	0.27
Austria	24.5	1.00	18.1	0.86	7.2	0.68	1.0	0.29
Belgium	25.5	0.75	24.7	0.74	11.9	0.64	2.5	0.30
Canada	29.8	0.61	24.9	0.50	10.1	0.41	1.8	0.20
Chile	23.5	1.02	9.3	0.72	1.9	0.30	‡	†
Czech Republic	26.3	0.83	17.9	1.03	5.6	0.48	0.7	0.19
Denmark	30.4	1.03	22.6	1.24	7.3	0.64	1.0	0.25
Estonia	31.0	1.22	21.7	0.85	7.5	0.67	0.9	0.27
Finland	27.0	0.85	27.4	0.78	14.2	0.70	3.1	0.36
France	26.3	1.19	20.9	1.17	8.5	0.86	1.4	0.29
Germany	26.1	0.95	22.7	1.02	9.4	0.75	1.5	0.30
Greece	27.0	1.08	15.6	0.92	4.6	0.40	0.6	0.12
Hungary	27.6	1.15	23.6	1.07	9.0	0.75	1.2	0.27
Iceland	28.1	0.87	22.1	1.12	10.3	0.79	2.3	0.31
Ireland	30.2	0.97	22.6	1.07	7.2	0.78	0.9	0.19
Israel	24.3	0.79	16.3	0.73	6.2	0.50	1.1	0.24
Italy	27.6	0.54	19.7	0.47	6.1	0.31	0.7	0.10
Japan	25.4	0.96	27.0	0.99	14.1	0.74	4.2	0.50
Korea, Republic of	30.1	0.98	30.3	1.22	13.9	1.08	2.7	0.42
Luxembourg	24.9	0.84	17.1	0.67	6.7	0.42	1.1	0.16
Mexico	23.0	0.63	7.6	0.37	1.2	0.13	0.1!	0.02
Netherlands	27.4	1.25	26.7	1.48	10.8	1.23	1.4	0.29
New Zealand	26.0	0.80	24.6	0.76	13.3	0.66	3.0	0.33
Norway	29.6	0.84	23.4	0.91	9.9	0.62	1.9	0.31
Poland	28.6	0.78	21.0	0.78	8.3	0.53	1.8	0.26
Portugal	30.5	1.28	19.3	1.05	5.3	0.59	‡	†
Slovak Republic	28.0	1.17	19.6	0.86	7.5	0.63	1.2	0.34
Slovenia	28.6	0.86	21.3	0.81	6.2	0.53	0.4!	0.16
Spain	29.2	0.68	17.7	0.60	5.2	0.35	0.7	0.10
Sweden	28.6	0.81	22.3	1.07	9.2	0.88	1.9	0.32
Switzerland	29.1	0.82	23.8	0.72	8.6	0.86	1.1	0.27
Turkey	27.3	0.96	14.9	1.10	3.4	0.55	0.3!	0.15
United Kingdom	28.3	0.93	19.8	0.93	7.1	0.57	1.2	0.24
United States	27.5	1.03	19.2	0.88	7.2	0.67	1.3	0.29

See notes at end of table.

Table R8. Percentage distribution of 15-year-old students on the access and retrieve reading literacy subscale, by proficiency level and country: 2009—Continued

Country	Below level 1b		Level 1b		Level 1a		Level 2	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
<i>Non-OECD countries</i>								
Albania	14.8	1.20	17.9	1.27	24.6	1.07	23.4	1.07
Argentina	12.9	1.10	16.0	1.02	24.0	1.27	23.8	1.16
Azerbaijan	16.9	1.40	22.5	1.08	27.6	1.03	20.7	1.04
Brazil	8.7	0.60	16.5	0.63	25.3	0.85	24.9	0.79
Bulgaria	12.6	1.52	11.5	0.93	16.6	1.07	20.1	1.24
<i>Chinese Taipei</i>	2.0	0.31	5.0	0.50	12.4	0.59	22.2	0.77
Colombia	6.3	0.83	15.5	1.03	29.3	1.08	28.4	1.00
Croatia	1.7	0.26	5.1	0.48	13.2	0.80	23.6	0.99
<i>Dubai-UAE</i>	5.3	0.42	9.9	0.76	17.1	0.53	23.1	0.75
<i>Hong Kong-China</i>	0.8	0.20	2.3	0.33	7.4	0.58	17.5	0.74
Indonesia	6.8	0.92	17.0	1.17	29.3	1.27	28.4	1.08
Jordan	11.7	0.84	15.3	0.80	26.0	1.03	25.4	0.82
Kazakhstan	10.8	0.78	18.1	0.84	25.0	0.92	23.0	0.86
Kyrgyz Republic	38.1	1.32	23.7	0.89	19.7	0.77	11.4	0.77
Latvia	1.6	0.32	5.2	0.63	15.4	0.97	27.0	1.03
Liechtenstein	‡	†	3.9	1.14	9.8	1.92	23.0	2.94
Lithuania	2.1	0.34	6.7	0.63	16.0	0.84	25.1	0.94
<i>Macao-China</i>	0.7	0.14	3.7	0.26	12.1	0.53	26.3	0.63
Montenegro, Republic of	11.2	0.65	15.7	0.96	21.7	0.74	23.8	0.68
Panama	19.4	2.15	21.3	1.73	24.2	1.47	18.4	1.23
Peru	16.9	1.12	21.7	1.25	26.8	1.16	21.4	1.06
Qatar	26.0	0.45	19.8	0.47	19.9	0.56	16.1	0.60
Romania	6.8	0.88	12.3	1.09	22.5	1.07	28.3	1.10
Russian Federation	2.6	0.44	6.8	0.67	16.9	1.03	27.7	0.93
Serbia, Republic of	3.2	0.50	8.5	0.62	19.3	0.89	29.9	1.18
<i>Shanghai-China</i>	0.5	0.14	1.5	0.31	5.7	0.59	14.8	0.77
Singapore	0.9	0.19	3.3	0.36	9.0	0.59	17.7	0.96
Thailand	2.6	0.48	10.2	0.93	26.1	1.07	33.0	1.08
Trinidad and Tobago	12.1	0.59	13.7	0.66	19.7	0.88	23.1	0.70
Tunisia	9.9	0.73	17.7	0.95	27.4	0.95	25.1	0.95
Uruguay	7.6	0.63	12.8	0.75	22.2	1.03	25.7	0.79

See notes at end of table.

Table R8. Percentage distribution of 15-year-old students on the access and retrieve reading literacy subscale, by proficiency level and country: 2009—Continued

Country	Level 3		Level 4		Level 5		Level 6	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
<i>Non-OECD countries</i>								
Albania	14.7	1.22	4.3	0.70	0.3!	0.16	#	†
Argentina	15.6	1.16	6.4	0.83	1.2	0.31	‡	†
Azerbaijan	9.3	0.74	2.6	0.41	0.4!	0.15	#	†
Brazil	15.4	0.66	6.9	0.64	1.9	0.32	0.2!	0.09
Bulgaria	20.0	1.29	12.9	1.17	5.0	0.74	1.2	0.34
<i>Chinese Taipei</i>	27.3	1.00	21.2	0.75	8.3	0.69	1.6	0.31
Colombia	15.6	0.91	4.3	0.45	0.6!	0.21	#	†
Croatia	27.8	1.31	20.6	0.96	7.1	0.60	1.0	0.24
<i>Dubai-UAE</i>	22.3	0.75	15.5	0.59	6.0	0.39	0.8	0.16
<i>Hong Kong-China</i>	28.3	0.92	29.5	0.91	12.2	0.69	2.0	0.38
Indonesia	14.1	1.09	3.9	0.66	0.5!	0.15	#	†
Jordan	15.2	0.81	5.2	0.50	1.0	0.22	0.2!	0.08
Kazakhstan	14.9	0.81	6.5	0.73	1.5	0.29	0.2!	0.08
Kyrgyz Republic	5.0	0.60	1.7	0.32	0.4!	0.16	‡	†
Latvia	30.2	1.17	16.7	1.08	3.5	0.46	0.3!	0.10
Liechtenstein	28.5	2.98	25.3	2.50	7.8	1.48	‡	†
Lithuania	26.7	0.87	16.9	0.77	5.6	0.45	0.9	0.18
<i>Macao-China</i>	31.7	0.77	19.6	0.52	5.3	0.33	0.5	0.11
Montenegro, Republic of	16.8	0.69	8.0	0.49	2.4	0.25	0.4!	0.21
Panama	10.6	1.25	4.7	0.88	1.1	0.32	‡	†
Peru	9.8	0.85	2.7	0.52	0.6!	0.22	‡	†
Qatar	10.2	0.42	5.5	0.24	2.0	0.18	0.5	0.08
Romania	21.1	1.24	7.8	0.79	1.1	0.29	‡	†
Russian Federation	25.8	0.78	14.0	0.78	5.0	0.47	1.1	0.26
Serbia, Republic of	26.0	0.94	11.0	0.90	2.1	0.34	‡	†
<i>Shanghai-China</i>	26.1	0.92	29.5	1.07	17.3	0.89	4.6	0.45
Singapore	25.8	0.71	26.8	0.86	13.5	0.62	3.0	0.27
Thailand	20.5	1.08	6.5	0.67	1.1	0.29	‡	†
Trinidad and Tobago	18.8	0.64	9.3	0.45	2.8	0.28	0.5	0.13
Tunisia	14.3	1.00	4.7	0.64	0.9	0.24	‡	†
Uruguay	19.9	0.75	9.2	0.60	2.4	0.31	0.3!	0.13

† Not applicable.

Rounds to zero.

! Interpret data with caution.

‡ Reporting standards not met.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into reading literacy levels according to their scores. Exact cut point scores are as follows: below level 1b (a score less than or equal to 262.04); level 1b (a score greater than 262.04 and less than or equal to 334.75); level 1a (a score greater than 334.75 and less than or equal to 407.47); level 2 (a score greater than 407.47 and less than or equal to 480.18); level 3 (a score greater than 480.18 and less than or equal to 552.89); level 4 (a score greater than 552.89 and less than or equal to 625.61); level 5 (a score greater than 625.61 and less than or equal to 698.32); and level 6 (a score greater than 698.32). Scores are reported on a scale from 0 to 1,000. The Organization for Economic Cooperation and Development (OECD) average is the average of the national percentages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries. Standard error is noted by s.e. Detail may not sum to totals because of rounding. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table R9. Percentage distribution of 15-year-old students on the integrate and interpret reading literacy subscale, by proficiency level and country: 2009

Country	Below level 1b		Level 1b		Level 1a		Level 2	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
OECD average	1.1	0.04	4.6	0.08	13.6	0.13	24.2	0.16
<i>OECD countries</i>								
Australia	1.0	0.13	3.7	0.25	10.9	0.49	20.7	0.47
Austria	1.8	0.32	7.5	0.64	17.6	0.91	25.2	1.32
Belgium	1.4	0.27	5.1	0.43	12.6	0.57	20.5	0.66
Canada	0.4	0.09	2.3	0.21	9.1	0.41	20.7	0.61
Chile	1.3	0.22	7.5	0.69	21.2	1.10	32.6	1.15
Czech Republic	0.6!	0.20	4.5	0.53	15.5	0.88	26.3	1.07
Denmark	0.5	0.13	3.1	0.34	12.3	0.64	26.8	0.87
Estonia	0.2!	0.12	2.4	0.39	11.6	0.80	25.4	1.07
Finland	‡	†	1.3	0.20	6.3	0.40	16.8	0.65
France	2.6	0.54	5.8	0.56	12.3	0.76	20.4	0.97
Germany	0.7!	0.24	4.2	0.45	12.8	0.77	22.4	0.87
Greece	1.0	0.29	5.0	0.72	14.7	1.08	26.5	0.94
Hungary	0.5!	0.16	3.7	0.63	12.8	0.88	24.3	1.30
Iceland	1.1	0.17	4.1	0.47	11.9	0.83	21.5	0.72
Ireland	1.5	0.39	4.1	0.55	12.6	0.76	24.0	0.87
Israel	3.5	0.56	8.2	0.65	15.2	0.69	22.9	0.95
Italy	1.1	0.24	4.6	0.29	13.9	0.44	24.4	0.60
Japan	1.2	0.28	3.4	0.46	9.3	0.69	18.9	0.77
Korea, Republic of	‡	†	0.9!	0.35	4.8	0.56	15.7	1.05
Luxembourg	2.6	0.27	7.2	0.39	16.2	0.62	23.8	0.79
Mexico	4.0	0.38	13.0	0.56	26.9	0.62	31.3	0.59
Netherlands	‡	†	2.7	0.44	14.1	1.54	24.4	1.24
New Zealand	1.0	0.25	3.6	0.50	10.9	0.54	20.3	0.69
Norway	0.6	0.16	3.7	0.45	11.9	0.66	23.7	1.10
Poland	0.5	0.14	3.1	0.40	11.5	0.71	24.5	0.92
Portugal	0.5	0.15	3.9	0.43	14.4	0.94	27.2	0.91
Slovak Republic	0.6!	0.26	4.7	0.59	16.0	0.81	28.1	1.04
Slovenia	0.4	0.08	4.5	0.40	15.0	0.74	25.2	0.96
Spain	1.1	0.15	4.5	0.51	14.0	0.68	27.5	0.69
Sweden	1.9	0.30	4.6	0.57	12.7	0.90	23.4	1.02
Switzerland	0.8	0.17	4.3	0.37	12.5	0.66	22.4	0.69
Turkey	0.4!	0.13	5.3	0.57	20.5	1.04	33.8	1.10
United Kingdom	1.0	0.18	4.5	0.44	14.6	0.73	25.0	0.76
United States	0.7!	0.22	4.7	0.46	14.5	0.80	24.9	0.83

See notes at end of table.

Table R9. Percentage distribution of 15-year-old students on the integrate and interpret reading literacy subscale, by proficiency level and country: 2009—Continued

Country	Level 3		Level 4		Level 5		Level 6	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
OECD average	28.1	0.17	20.2	0.16	7.2	0.10	1.1	0.04
<i>OECD countries</i>								
Australia	27.6	0.72	22.9	0.56	10.5	0.49	2.7	0.44
Austria	25.7	0.98	17.1	0.96	4.7	0.47	0.4	0.12
Belgium	24.9	0.70	23.3	0.79	10.6	0.64	1.5	0.29
Canada	28.8	0.61	25.0	0.48	11.4	0.44	2.3	0.24
Chile	25.5	0.98	9.9	0.77	1.9	0.42	‡	†
Czech Republic	27.3	1.10	18.7	1.18	6.4	0.60	0.7	0.17
Denmark	33.0	0.90	19.8	0.89	4.4	0.48	0.2!	0.09
Estonia	33.2	1.07	20.9	0.88	5.6	0.51	0.6!	0.23
Finland	29.7	0.83	30.0	0.85	13.6	0.72	2.2	0.28
France	25.7	1.06	21.6	1.02	9.9	0.80	1.8	0.32
Germany	27.9	1.18	22.7	1.15	8.3	0.69	0.9	0.22
Greece	28.5	1.05	18.5	1.10	5.1	0.49	0.6	0.17
Hungary	30.7	1.22	21.7	1.24	6.0	0.69	0.4	0.11
Iceland	29.4	0.93	22.2	0.81	8.5	0.60	1.3	0.25
Ireland	29.3	1.12	20.9	0.88	6.9	0.62	0.8	0.17
Israel	25.4	0.97	17.7	0.74	6.2	0.47	0.9	0.17
Italy	29.2	0.58	20.4	0.54	5.9	0.30	0.6	0.09
Japan	27.1	0.87	26.2	1.08	11.3	0.67	2.6	0.45
Korea, Republic of	31.7	1.07	32.4	1.28	12.9	1.15	1.4	0.24
Luxembourg	26.0	0.75	17.7	0.62	5.9	0.43	0.7	0.17
Mexico	19.1	0.60	5.1	0.37	0.5	0.07	#	†
Netherlands	26.2	1.24	21.7	1.67	9.6	0.93	1.3	0.29
New Zealand	25.2	0.84	23.3	0.81	12.5	0.81	3.1	0.42
Norway	30.0	1.08	20.9	1.04	8.2	0.64	1.1	0.20
Poland	29.9	0.97	22.0	0.92	7.5	0.55	1.0	0.21
Portugal	30.6	1.16	18.1	0.84	4.8	0.55	‡	†
Slovak Republic	28.6	1.22	17.2	0.92	4.5	0.51	0.4!	0.14
Slovenia	29.2	0.85	20.0	0.80	5.4	0.53	0.4!	0.14
Spain	32.2	0.86	17.2	0.64	3.3	0.21	0.2	0.05
Sweden	28.5	1.01	19.4	1.03	8.1	0.64	1.5	0.27
Switzerland	28.0	0.93	22.7	0.95	8.2	0.69	1.2	0.26
Turkey	27.8	1.19	11.0	1.14	1.2	0.32	#	†
United Kingdom	28.1	0.80	18.5	0.71	7.1	0.45	1.2	0.19
United States	26.0	0.78	19.1	0.88	8.2	0.73	1.8	0.38

See notes at end of table.

Table R9. Percentage distribution of 15-year-old students on the integrate and interpret reading literacy subscale, by proficiency level and country: 2009—Continued

Country	Below level 1b		Level 1b		Level 1a		Level 2	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
<i>Non-OECD countries</i>								
Albania	9.6	0.80	17.4	1.02	26.6	1.34	27.1	1.03
Argentina	10.9	1.14	16.4	1.02	25.0	1.10	25.0	1.29
Azerbaijan	5.3	0.70	23.4	1.35	40.0	1.20	25.8	1.36
Brazil	5.5	0.39	17.4	0.68	29.3	0.79	26.3	0.76
Bulgaria	5.6	0.81	12.8	1.32	20.5	1.39	24.9	1.36
<i>Chinese Taipei</i>	0.4!	0.20	3.2	0.38	11.6	0.62	24.5	0.85
Colombia	4.7	0.75	14.7	1.06	28.9	1.19	29.8	1.06
Croatia	0.6	0.15	4.9	0.61	16.9	1.08	29.3	0.97
<i>Dubai-UAE</i>	3.5	0.31	9.7	0.59	19.3	0.60	25.5	0.91
<i>Hong Kong-China</i>	0.4!	0.15	2.0	0.29	7.0	0.59	17.8	0.94
Indonesia	1.8	0.40	15.4	1.29	39.0	1.59	33.3	1.51
Jordan	4.8	0.59	13.0	0.92	28.2	1.14	33.9	0.97
Kazakhstan	5.2	0.44	19.3	1.31	31.8	1.13	26.0	0.87
Kyrgyz Republic	22.5	1.34	32.0	1.41	28.1	0.95	13.0	0.83
Latvia	0.4!	0.14	2.7	0.49	14.2	1.03	29.8	1.17
Liechtenstein	‡	†	4.4	1.20	12.2	2.12	23.5	2.54
Lithuania	0.8	0.22	4.9	0.52	18.5	0.87	31.2	1.25
<i>Macao-China</i>	0.2!	0.06	2.5	0.24	12.4	0.45	30.4	0.74
Montenegro, Republic of	3.7	0.32	12.8	0.66	27.8	0.88	30.6	0.78
Panama	11.3	1.56	23.7	1.85	30.8	1.83	21.2	1.57
Peru	14.0	0.99	22.4	1.05	27.9	1.12	21.9	0.89
Qatar	12.9	0.44	23.7	0.56	26.3	0.61	19.6	0.70
Romania	3.4	0.52	12.4	1.04	25.1	1.27	32.2	1.27
Russian Federation	1.2	0.28	6.0	0.56	17.9	0.91	31.0	1.02
Serbia, Republic of	1.7	0.34	8.4	0.61	22.3	0.88	32.7	0.84
<i>Shanghai-China</i>	#	†	0.5	0.15	3.4	0.50	13.3	0.75
Singapore	0.6	0.14	3.0	0.27	9.9	0.54	19.2	0.69
Thailand	1.4	0.26	11.1	0.89	33.5	1.09	35.6	1.23
Trinidad and Tobago	8.2	0.58	14.3	0.60	22.0	0.80	25.9	1.04
Tunisia	5.6	0.62	17.2	1.03	32.9	1.27	30.3	1.29
Uruguay	5.1	0.58	13.1	0.83	24.8	0.84	29.0	0.91

See notes at end of table.

Table R9. Percentage distribution of 15-year-old students on the integrate and interpret reading literacy subscale, by proficiency level and country: 2009—Continued

Country	Level 3		Level 4		Level 5		Level 6	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
<i>Non-OECD countries</i>								
Albania	15.1	1.23	3.9	0.51	0.3!	0.12	#	†
Argentina	15.5	1.08	6.0	0.83	1.2	0.27	‡	†
Azerbaijan	5.1	0.70	0.3!	0.15	#	†	#	†
Brazil	14.7	0.84	5.5	0.46	1.1	0.22	0.1!	0.05
Bulgaria	21.8	1.54	11.4	1.14	2.7	0.50	‡	†
<i>Chinese Taipei</i>	32.7	1.02	21.3	0.90	5.9	0.73	0.5!	0.21
Colombia	16.5	1.04	4.7	0.53	0.6	0.16	#	†
Croatia	30.9	1.13	15.0	0.95	2.2	0.32	‡	†
<i>Dubai-UAE</i>	22.7	0.84	14.1	0.57	4.6	0.47	0.6	0.15
<i>Hong Kong-China</i>	30.2	1.01	29.3	1.22	11.5	0.73	1.8	0.24
Indonesia	9.5	1.17	0.9!	0.31	#	†	#	†
Jordan	17.1	1.01	3.0	0.41	‡	†	#	†
Kazakhstan	13.7	0.90	3.6	0.50	0.4!	0.11	#	†
Kyrgyz Republic	3.7	0.44	0.7	0.17	#	†	#	†
Latvia	32.7	1.11	17.1	1.00	3.0	0.38	0.1!	0.06
Liechtenstein	30.5	3.19	23.2	2.68	5.2!	1.84	‡	†
Lithuania	27.7	1.00	13.8	0.79	2.9	0.39	0.1!	0.07
<i>Macao-China</i>	33.7	0.67	17.5	0.48	3.3	0.32	‡	†
Montenegro, Republic of	18.8	0.74	5.7	0.40	0.7!	0.26	#	†
Panama	9.9	1.42	2.7	0.62	0.4!	0.14	#	†
Peru	10.1	0.82	3.1	0.54	0.6!	0.19	‡	†
Qatar	11.3	0.32	4.8	0.28	1.2	0.16	0.1!	0.05
Romania	20.6	1.30	5.7	0.73	0.7	0.20	#	†
Russian Federation	27.0	1.09	13.0	0.97	3.6	0.47	0.4!	0.14
Serbia, Republic of	25.4	0.82	8.4	0.60	1.1	0.23	#	†
<i>Shanghai-China</i>	28.3	1.15	33.2	0.90	18.0	0.93	3.1	0.40
Singapore	26.2	0.72	24.8	0.94	12.9	0.55	3.5	0.33
Thailand	15.2	0.81	3.0	0.52	0.2!	0.11	#	†
Trinidad and Tobago	18.5	0.81	8.6	0.63	2.2	0.26	0.2!	0.07
Tunisia	11.9	0.78	1.9	0.36	‡	†	#	†
Uruguay	19.1	0.72	7.3	0.50	1.5	0.25	‡	†

† Not applicable.

Rounds to zero.

! Interpret data with caution.

‡ Reporting standards not met.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into reading literacy levels according to their scores. Exact cut point scores are as follows: below level 1b (a score less than or equal to 262.04); level 1b (a score greater than 262.04 and less than or equal to 334.75); level 1a (a score greater than 334.75 and less than or equal to 407.47); level 2 (a score greater than 407.47 and less than or equal to 480.18); level 3 (a score greater than 480.18 and less than or equal to 552.89); level 4 (a score greater than 552.89 and less than or equal to 625.61); level 5 (a score greater than 625.61 and less than or equal to 698.32); and level 6 (a score greater than 698.32). Scores are reported on a scale from 0 to 1,000. The Organization for Economic Cooperation and Development (OECD) average is the average of the national percentages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries. Standard error is noted by s.e. Detail may not sum to totals because of rounding. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table R10. Percentage distribution of 15-year-old students on the reflect and evaluate reading literacy subscale, by proficiency level and country: 2009

Country	Below level 1b		Level 1b		Level 1a		Level 2	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
OECD average	1.6	0.05	4.9	0.09	12.8	0.13	23.0	0.16
<i>OECD countries</i>								
Australia	1.0	0.15	3.2	0.26	9.3	0.46	18.9	0.58
Austria	4.2	0.64	9.0	0.73	16.5	0.82	22.7	1.00
Belgium	2.2	0.32	5.0	0.42	11.3	0.67	18.8	0.75
Canada	0.3	0.05	1.8	0.14	6.5	0.38	17.6	0.48
Chile	1.3	0.33	7.4	0.71	20.6	0.91	32.4	1.04
Czech Republic	2.6	0.35	8.0	0.72	18.8	0.89	26.7	0.96
Denmark	0.7!	0.21	3.4	0.41	12.6	0.68	25.7	0.86
Estonia	‡	†	2.7	0.40	10.4	0.72	25.3	1.11
Finland	0.4	0.09	1.3	0.24	6.3	0.56	16.9	0.71
France	2.4	0.47	5.8	0.61	12.0	0.87	21.0	1.14
Germany	1.5	0.28	5.5	0.60	12.6	0.74	22.6	0.93
Greece	2.2	0.59	5.9	0.86	13.0	0.84	22.7	0.78
Hungary	0.9!	0.27	4.9	0.73	14.1	1.08	24.4	1.35
Iceland	1.1	0.19	4.5	0.44	12.0	0.69	22.8	0.68
Ireland	1.3	0.34	4.2	0.56	11.5	0.66	21.5	0.80
Israel	4.0	0.68	7.3	0.63	13.0	0.71	21.4	0.78
Italy	2.6	0.31	6.3	0.30	14.5	0.45	22.8	0.52
Japan	1.9	0.48	3.9	0.51	9.1	0.69	17.8	0.83
Korea, Republic of	0.3!	0.12	1.1!	0.40	5.3	0.70	15.5	1.06
Luxembourg	3.5	0.33	7.5	0.48	15.5	0.64	23.9	0.76
Mexico	3.3	0.32	10.3	0.43	23.8	0.58	31.9	0.55
Netherlands	‡	†	1.6	0.29	11.2	1.43	24.8	1.53
New Zealand	0.9!	0.29	3.4	0.45	9.5	0.57	17.5	0.61
Norway	0.7	0.17	3.6	0.44	10.9	0.63	22.6	0.75
Poland	0.9	0.23	3.6	0.38	11.4	0.76	24.3	0.94
Portugal	0.7	0.17	4.2	0.48	12.5	0.85	23.7	0.87
Slovak Republic	2.1	0.44	7.8	0.71	17.5	0.79	26.6	1.17
Slovenia	2.3	0.22	7.6	0.45	16.9	0.63	24.2	0.92
Spain	1.9	0.26	5.3	0.44	13.0	0.67	24.9	0.73
Sweden	1.5	0.25	4.2	0.42	10.8	0.72	22.6	0.83
Switzerland	1.0	0.19	4.7	0.48	12.4	0.70	23.0	0.76
Turkey	1.4	0.28	6.0	0.66	17.3	0.97	27.5	1.20
United Kingdom	0.9	0.17	3.8	0.37	12.2	0.60	23.5	0.78
United States	0.5	0.14	3.3	0.55	11.1	1.11	22.2	1.15

See notes at end of table.

Table R10. Percentage distribution of 15-year-old students on the reflect and evaluate reading literacy subscale, by proficiency level and country: 2009—Continued

Country	Level 3		Level 4		Level 5		Level 6	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
OECD average	28.2	0.16	20.8	0.16	7.6	0.10	1.2	0.04
<i>OECD countries</i>								
Australia	26.8	0.61	25.0	0.59	12.6	0.59	3.2	0.45
Austria	26.2	1.12	16.7	0.84	4.3	0.45	0.4!	0.11
Belgium	25.9	0.84	24.9	0.77	10.7	0.64	1.4	0.27
Canada	29.4	0.57	28.5	0.62	13.2	0.43	2.7	0.28
Chile	26.8	0.98	10.0	0.70	1.4	0.27	#	†
Czech Republic	24.8	0.98	14.4	0.92	4.2	0.39	0.4	0.10
Denmark	31.9	0.83	20.0	0.99	5.3	0.48	0.5	0.13
Estonia	32.4	1.21	21.9	1.10	6.1	0.53	0.7	0.16
Finland	30.5	0.91	30.0	0.88	12.8	0.73	1.8	0.27
France	26.7	1.02	21.8	1.02	9.1	0.82	1.1	0.30
Germany	29.3	1.14	22.0	0.92	6.0	0.50	0.5!	0.21
Greece	27.7	1.02	20.2	0.90	7.0	0.53	1.3	0.23
Hungary	29.7	1.11	19.7	0.97	5.9	0.55	0.5!	0.15
Iceland	31.4	0.91	21.1	0.76	6.4	0.52	0.7	0.22
Ireland	29.2	0.96	22.8	1.01	8.5	0.67	1.1	0.28
Israel	25.1	0.96	19.5	0.94	8.0	0.72	1.6	0.25
Italy	27.1	0.55	19.7	0.55	6.2	0.40	0.7	0.09
Japan	25.9	0.89	25.0	0.88	12.7	0.70	3.6	0.41
Korea, Republic of	30.1	1.35	31.7	1.30	14.0	1.10	2.0	0.38
Luxembourg	26.8	0.67	16.9	0.82	5.3	0.46	0.5	0.14
Mexico	23.2	0.61	6.8	0.35	0.7	0.11	#	†
Netherlands	29.1	1.28	23.7	1.71	8.8	0.83	0.7!	0.23
New Zealand	24.0	0.73	25.0	0.74	14.9	0.81	4.7	0.47
Norway	30.7	0.78	22.4	0.90	8.0	0.64	1.1	0.26
Poland	31.3	0.74	21.4	0.86	6.5	0.55	0.6	0.17
Portugal	30.2	0.94	20.9	0.93	7.0	0.57	0.6	0.17
Slovak Republic	26.4	1.17	15.4	0.89	3.9	0.40	0.3!	0.13
Slovenia	27.2	1.17	17.0	0.98	4.4	0.56	0.4!	0.18
Spain	30.9	0.75	19.1	0.71	4.5	0.30	0.4	0.07
Sweden	29.6	0.81	21.2	0.86	8.5	0.66	1.6	0.31
Switzerland	29.1	0.87	21.7	0.99	7.1	0.59	1.1	0.27
Turkey	27.5	1.08	15.8	1.06	3.9	0.54	0.5!	0.23
United Kingdom	28.2	0.71	20.9	1.05	8.8	0.63	1.8	0.28
United States	27.4	0.88	23.1	1.04	10.2	0.93	2.2	0.41

See notes at end of table.

Table R10. Percentage distribution of 15-year-old students on the reflect and evaluate reading literacy subscale, by proficiency level and country: 2009—Continued

Country	Below level 1b		Level 1b		Level 1a		Level 2	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
<i>Non-OECD countries</i>								
Albania	14.6	1.16	18.7	0.95	26.2	0.97	23.6	1.05
Argentina	10.7	1.10	15.6	1.11	23.5	1.16	25.2	1.12
Azerbaijan	21.5	1.45	28.1	1.03	28.9	1.07	16.2	0.91
Brazil	3.8	0.36	13.1	0.65	26.6	0.75	29.6	0.75
Bulgaria	11.3	1.44	13.4	1.13	19.4	1.22	23.0	1.12
<i>Chinese Taipei</i>	0.9	0.23	3.8	0.41	11.7	0.78	24.8	1.05
Colombia	4.0	0.75	13.2	1.04	26.3	0.98	30.1	1.29
Croatia	2.1	0.45	7.4	0.72	17.0	1.03	25.6	1.18
<i>Dubai-UAE</i>	3.6	0.28	8.4	0.49	17.8	0.70	23.8	0.79
<i>Hong Kong-China</i>	0.2!	0.11	1.6	0.27	6.2	0.50	14.7	0.74
Indonesia	1.9	0.50	12.2	1.11	35.1	1.45	35.8	1.33
Jordan	7.6	0.74	13.5	0.92	26.3	1.15	29.8	0.88
Kazakhstan	13.5	0.89	23.0	0.90	27.5	1.21	20.6	1.02
Kyrgyz Republic	37.2	1.59	26.8	1.15	19.2	0.87	10.5	0.73
Latvia	0.4!	0.19	2.9	0.45	11.6	0.90	27.6	1.22
Liechtenstein	‡	†	4.4	1.31	12.0	2.09	23.0	3.23
Lithuania	1.4	0.26	6.9	0.62	18.7	0.84	29.3	1.15
<i>Macao-China</i>	0.4	0.11	3.4	0.34	13.9	0.56	30.6	0.76
Montenegro, Republic of	11.7	0.62	20.2	0.97	26.3	0.77	24.8	0.89
Panama	11.9	1.83	23.1	2.00	27.9	1.98	21.5	1.82
Peru	15.2	1.12	22.5	1.22	26.9	1.16	21.4	0.84
Qatar	19.0	0.46	20.7	0.47	21.6	0.46	17.9	0.50
Romania	5.3	0.81	12.2	1.00	22.7	1.21	29.5	1.35
Russian Federation	3.6	0.57	10.1	0.67	22.1	0.97	29.7	1.07
Serbia, Republic of	3.5	0.45	11.4	0.61	24.3	0.89	30.3	0.97
<i>Shanghai-China</i>	0.2!	0.05	0.6	0.15	4.2	0.51	13.2	0.66
Singapore	0.6	0.11	2.8	0.25	9.0	0.54	18.0	0.76
Thailand	2.1	0.44	12.3	0.79	29.3	0.92	33.3	1.12
Trinidad and Tobago	11.1	0.64	14.6	0.67	20.0	0.76	24.1	0.97
Tunisia	4.3	0.47	11.0	0.86	24.0	1.08	32.2	1.10
Uruguay	5.2	0.55	11.9	0.67	21.8	0.95	26.9	0.82

See notes at end of table.

Table R10. Percentage distribution of 15-year-old students on the reflect and evaluate reading literacy subscale, by proficiency level and country: 2009—Continued

Country	Level 3		Level 4		Level 5		Level 6	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
<i>Non-OECD countries</i>								
Albania	13.2	1.08	3.3	0.50	0.3!	0.11	#	†
Argentina	17.0	1.09	6.6	0.84	1.3	0.28	‡	†
Azerbaijan	4.6	0.64	0.7	0.18	‡	†	#	†
Brazil	18.5	0.91	7.0	0.56	1.4	0.24	‡	†
Bulgaria	19.9	1.38	10.0	0.99	2.6	0.37	0.4!	0.17
<i>Chinese Taipei</i>	33.2	1.17	20.7	0.93	4.5	0.58	0.4!	0.16
Colombia	19.2	1.16	6.3	0.67	0.9	0.22	#	†
Croatia	26.4	1.07	16.2	0.86	4.8	0.49	0.5	0.13
<i>Dubai-UAE</i>	24.2	0.72	16.0	0.59	5.7	0.40	0.7!	0.23
<i>Hong Kong-China</i>	29.9	1.33	32.0	1.24	13.5	0.86	1.9	0.24
Indonesia	13.3	1.34	1.7	0.44	#	†	#	†
Jordan	17.6	0.91	4.7	0.49	0.5	0.15	#	†
Kazakhstan	11.3	0.87	3.6	0.50	0.4!	0.14	#	†
Kyrgyz Republic	4.8	0.55	1.3	0.26	0.2!	0.07	#	†
Latvia	34.1	1.28	19.2	1.31	4.0	0.43	0.2!	0.11
Liechtenstein	31.5	3.09	22.9	2.41	5.7	1.38	‡	†
Lithuania	27.3	1.02	13.5	0.74	2.8	0.46	0.2!	0.09
<i>Macao-China</i>	33.6	0.93	15.6	0.77	2.4	0.26	0.1!	0.05
Montenegro, Republic of	12.6	0.85	3.9	0.45	0.5!	0.16	#	†
Panama	10.8	1.35	4.1	0.74	0.7	0.21	#	†
Peru	10.7	0.90	2.8	0.49	0.4!	0.15	#	†
Qatar	12.1	0.32	6.1	0.29	2.2	0.18	0.4	0.10
Romania	21.6	1.26	7.4	0.90	1.2	0.26	0.1!	0.04
Russian Federation	22.5	0.94	9.5	0.69	2.2	0.37	0.3!	0.10
Serbia, Republic of	22.3	0.99	7.2	0.56	1.0	0.20	#	†
<i>Shanghai-China</i>	27.6	0.91	32.9	0.81	17.9	0.83	3.4	0.39
Singapore	27.3	0.80	25.3	0.90	13.6	0.70	3.5	0.48
Thailand	18.0	0.84	4.3	0.52	0.5!	0.22	#	†
Trinidad and Tobago	18.9	1.03	8.7	0.50	2.4	0.29	0.3!	0.09
Tunisia	21.0	0.97	6.5	0.71	0.9!	0.27	‡	†
Uruguay	21.1	0.73	10.3	0.86	2.6	0.39	0.3!	0.10

† Not applicable.

Rounds to zero.

! Interpret data with caution.

‡ Reporting standards not met.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into reading literacy levels according to their scores. Exact cut point scores are as follows: below level 1b (a score less than or equal to 262.04); level 1b (a score greater than 262.04 and less than or equal to 334.75); level 1a (a score greater than 334.75 and less than or equal to 407.47); level 2 (a score greater than 407.47 and less than or equal to 480.18); level 3 (a score greater than 480.18 and less than or equal to 552.89); level 4 (a score greater than 552.89 and less than or equal to 625.61); level 5 (a score greater than 625.61 and less than or equal to 698.32); and level 6 (a score greater than 698.32). Scores are reported on a scale from 0 to 1,000. The Organization for Economic Cooperation and Development (OECD) average is the average of the national percentages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries. Standard error is noted by s.e. Detail may not sum to totals because of rounding. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table R11. Percentage distribution of U.S. 15-year-old students on combined reading literacy scale, by proficiency level and race/ethnicity: 2009

Race/ethnicity	Below level 1b		Level 1b		Level 1a		Level 2	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
United States	0.6	0.13	4.0	0.45	13.1	0.84	24.4	0.86
White, non-Hispanic	‡	†	1.8**	0.42	8.5*	0.77	20.3**	1.34
Black, non-Hispanic	1.9!	0.85	10.0*	1.69	24.7*	3.00	30.9*	2.44
Hispanic	0.9!	0.40	5.8	0.94	18.4*	1.41	32.6*	2.04
Asian, non-Hispanic	‡	†	‡	†	6.5!*	2.43	15.9*	2.93
American Indian/Alaska Native, non-Hispanic	‡	†	‡	†	‡	†	‡	†
Native Hawaiian/Other Pacific Islander, non-Hispanic	‡	†	‡	†	‡	†	‡	†
Two or more races, non-Hispanic	‡	†	3.6!	1.59	13.3	3.08	22.3	3.70
OECD average	1.1	0.05	4.6	0.08	13.1	0.13	24.0	0.16

See notes at end of table.

Table R11. Percentage distribution of U.S. 15-year-old students on combined reading literacy scale, by proficiency level and race/ethnicity: 2009—Continued

Race/ethnicity	Level 3		Level 4		Level 5		Level 6	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
United States	27.6	0.83	20.6	0.90	8.4	0.75	1.5	0.42
White, non-Hispanic	29.4	1.01	26.2*	1.07	11.5*	1.11	2.2!*	0.67
Black, non-Hispanic	20.6*	2.71	8.8*	1.64	2.9!*	1.03	‡	†
Hispanic	26.5	1.61	11.9*	1.35	3.5*	0.69	‡	†
Asian, non-Hispanic	29.4	4.18	29.4*	3.85	13.5***	3.58	‡	†
American Indian/Alaska Native, non-Hispanic	‡	†	‡	†	‡	†	‡	†
Native Hawaiian/Other Pacific Islander, non-Hispanic	‡	†	‡	†	‡	†	‡	†
Two or more races, non-Hispanic	29.8	4.18	21.9	3.52	7.4!***	3.00	‡	†
OECD average	28.9	0.16	20.7	0.16	6.8	0.10	0.8	0.03

† Not applicable.

Rounds to zero.

! Interpret data with caution.

‡ Reporting standards not met.

* $p < .05$. Significantly different from the U.S. and Organization for Economic Cooperation and Development (OECD) averages at the .05 level of statistical significance.

** $p < .05$. Significantly different from the OECD average at the .05 level of statistical significance, but not significantly different from the U.S. average.

*** $p < .05$. Significantly different from the U.S. average at the .05 level of statistical significance, but not significantly different from the OECD average.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into reading literacy levels according to their scores. Exact cut point scores are as follows: below level 1b (a score less than or equal to 262.04); level 1b (a score greater than 262.04 and less than or equal to 334.75); level 1a (a score greater than 334.75 and less than or equal to 407.47); level 2 (a score greater than 407.47 and less than or equal to 480.18); level 3 (a score greater than 480.18 and less than or equal to 552.89); level 4 (a score greater than 552.89 and less than or equal to 625.61); level 5 (a score greater than 625.61 and less than or equal to 698.32); and level 6 (a score greater than 698.32). Scores are reported on a scale from 0 to 1,000. The OECD average is the average of the national percentages of the OECD member countries, with each country weighted equally. Reporting standards were not met for American Indian/Alaska Native and Native Hawaiian/Other Pacific Islander. Black includes African American, and Hispanic includes Latino. Students who identified themselves as being of Hispanic origin were classified as Hispanic, regardless of their race. Although data for some race/ethnicities are not shown separately because the reporting standards were not met, they are included in the U.S. totals shown throughout the report. Students who identified themselves as being of Hispanic origin were classified as Hispanic, regardless of their race. Standard error is noted by s.e. Detail may not sum to totals because of rounding.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table R12. Percentage distribution of U.S. 15-year-old students on combined reading literacy scale, by proficiency level and percentage of students in public school eligible for free or reduced-price lunch: 2009

Percent of students eligible for free or reduced-price lunch	Below level 1b		Level 1b		Level 1a		Level 2	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
U.S. average	0.6	0.13	4.0	0.45	13.1	0.84	24.4	0.86
Less than 10 percent	#	†	‡	†	4.2!*	1.63	14.7*	2.45
10 to 24.9 percent	‡	†	2.0!*	0.83	7.6*	1.81	19.9***	2.15
25 to 49.9 percent	‡	†	2.7*	0.63	12.7	1.18	25.6	1.31
50 to 74.9 percent	‡	†	5.8	1.17	18.5*	1.72	29.5*	1.76
75 percent or more	1.9***	0.56	9.4*	1.55	22.7*	2.79	30.1*	2.28
OECD average	1.1	0.05	4.6	0.08	13.1	0.13	24.0	0.16

See notes at end of table.

Table R12. Percentage distribution of U.S. 15-year-old students on combined reading literacy scale, by proficiency level and percentage of students in public school eligible for free or reduced-price lunch: 2009—Continued

Percent of students eligible for free or reduced-price lunch	Level 3		Level 4		Level 5		Level 6	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
U.S. average	27.6	0.83	20.6	0.90	8.4	0.75	1.5	0.42
Less than 10 percent	30.2	2.96	30.4 *	3.16	15.9 *	2.64	3.7!*	1.37
10 to 24.9 percent	29.4	2.03	27.5 *	2.12	11.5 *	1.72	2.0!	0.64
25 to 49.9 percent	29.1	1.27	21.1	1.34	7.3	0.89	1.2!	0.39
50 to 74.9 percent	26.0	1.76	14.7 *	1.73	4.3 *	0.76	‡	†
75 percent or more	23.6 *	2.17	9.9 *	1.52	2.2!*	0.76	‡	†
OECD average	28.9	0.16	20.7	0.16	6.8	0.10	0.8	0.03

† Not applicable.

Rounds to zero.

! Interpret data with caution.

‡ Reporting standards not met.

* $p < .05$. Significantly different from the U.S. and Organization for Economic Cooperation and Development (OECD) averages at the .05 level of statistical significance.




*** $p < .05$. Significantly different from the U.S. average at the .05 level of statistical significance, but not significantly different from the OECD average.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into reading literacy levels according to their scores. Exact cut point scores are as follows: below level 1b (a score less than or equal to 262.04); level 1b (a score greater than 262.04 and less than or equal to 334.75); level 1a (a score greater than 334.75 and less than or equal to 407.47); level 2 (a score greater than 407.47 and less than or equal to 480.18); level 3 (a score greater than 480.18 and less than or equal to 552.89); level 4 (a score greater than 552.89 and less than or equal to 625.61); level 5 (a score greater than 625.61 and less than or equal to 698.32); and level 6 (a score greater than 698.32). Scores are reported on a scale from 0 to 1,000. The National School Lunch Program provides free or reduced-price lunch for students meeting certain income guidelines. The percentage of students receiving such lunch is an indicator of the socioeconomic level of families served by the school. The OECD average is the average of the national percentages of the OECD member countries, with each country weighted equally. Standard error is noted by s.e. Data are for public schools only. Detail may not sum to totals because of rounding.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table M1. Average scores of 15-year-old students on mathematics literacy scale, by country: 2009

Mathematics literacy scale			Mathematics literacy scale		
Country	Score	s.e.	Country	Score	s.e.
OECD average	496	0.5			
<i>OECD countries</i>			<i>Non-OECD countries</i>		
Korea, Republic of	546	4.0	Shanghai-China	600	2.8
Finland	541	2.2	Singapore	562	1.4
Switzerland	534	3.3	Hong Kong-China	555	2.7
Japan	529	3.3	Chinese Taipei	543	3.4
Canada	527	1.6	Liechtenstein	536	4.1
Netherlands	526	4.7	Macao-China	525	0.9
New Zealand	519	2.3	Latvia	482	3.1
Belgium	515	2.3	Lithuania	477	2.6
Australia	514	2.5	Russian Federation	468	3.3
Germany	513	2.9	Croatia	460	3.1
Estonia	512	2.6	Dubai-UAE	453	1.1
Iceland	507	1.4	Serbia, Republic of	442	2.9
Denmark	503	2.6	Azerbaijan	431	2.8
Slovenia	501	1.2	Bulgaria	428	5.9
Norway	498	2.4	Romania	427	3.4
France	497	3.1	Uruguay	427	2.6
Slovak Republic	497	3.1	Thailand	419	3.2
Austria	496	2.7	Trinidad and Tobago	414	1.3
Poland	495	2.8	Kazakhstan	405	3.0
Sweden	494	2.9	Montenegro, Republic of	403	2.0
Czech Republic	493	2.8	Argentina	388	4.1
United Kingdom	492	2.4	Jordan	387	3.7
Hungary	490	3.5	Brazil	386	2.4
Luxembourg	489	1.2	Colombia	381	3.2
United States	487	3.6	Albania	377	4.0
Ireland	487	2.5	Tunisia	371	3.0
Portugal	487	2.9	Indonesia	371	3.7
Spain	483	2.1	Qatar	368	0.7
Italy	483	1.9	Peru	365	4.0
Greece	466	3.9	Panama	360	5.2
Israel	447	3.3	Kyrgyz Republic	331	2.9
Turkey	445	4.4			
Chile	421	3.1			
Mexico	419	1.8			

-  Average is higher than the U.S. average
-  Average is not measurably different from the U.S. average
-  Average is lower than the U.S. average

NOTE: The Organization for Economic Cooperation and Development (OECD) average is the average of the national averages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries and are not included in the OECD average. Countries are ordered on the basis of average scores, from highest to lowest within the OECD countries and non-OECD countries. Scores are reported on a scale from 0 to 1,000. Score differences as noted between the United States and other countries (as well as between the United States and the OECD average) are significantly different at the .05 level of statistical significance. Standard error is noted by s.e. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

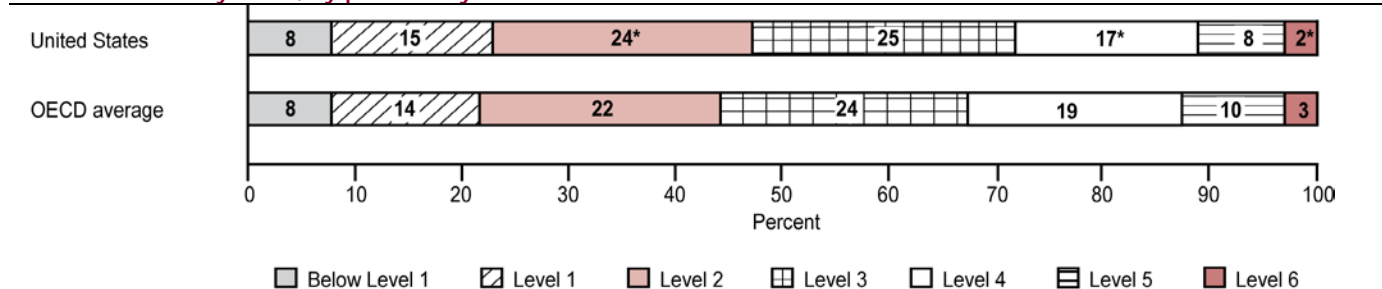
Exhibit M1. Description of PISA proficiency levels on mathematics literacy scale: 2009

Proficiency level and lower cut point score	Task descriptions
Level 6 669	At level 6, students can conceptualize, generalize, and utilize information based on their investigations and modeling of complex problem situations. They can link different information sources and representations and flexibly translate among them. Students at this level are capable of advanced mathematical thinking and reasoning. These students can apply this insight and understandings along with a mastery of symbolic and formal mathematical operations and relationships to develop new approaches and strategies for attacking novel situations. Students at this level can formulate and precisely communicate their actions and reflections regarding their findings, interpretations, arguments, and the appropriateness of these to the original situations.
Level 5 607	At level 5, students can develop and work with models for complex situations, identifying constraints and specifying assumptions. They can select, compare, and evaluate appropriate problem solving strategies for dealing with complex problems related to these models. Students at this level can work strategically using broad, well-developed thinking and reasoning skills, appropriate linked representations, symbolic and formal characterizations, and insight pertaining to these situations. They can reflect on their actions and formulate and communicate their interpretations and reasoning.
Level 4 545	At level 4, students can work effectively with explicit models for complex concrete situations that may involve constraints or call for making assumptions. They can select and integrate different representations, including symbolic ones, linking them directly to aspects of real-world situations. Students at this level can utilize well-developed skills and reason flexibly, with some insight, in these contexts. They can construct and communicate explanations and arguments based on their interpretations, arguments, and actions.
Level 3 482	At level 3, students can execute clearly described procedures, including those that require sequential decisions. They can select and apply simple problem solving strategies. Students at this level can interpret and use representations based on different information sources and reason directly from them. They can develop short communications reporting their interpretations, results and reasoning.
Level 2 420	At level 2, students can interpret and recognize situations in contexts that require no more than direct inference. They can extract relevant information from a single source and make use of a single representational mode. Students at this level can employ basic algorithms, formulae, procedures, or conventions. They are capable of direct reasoning and making literal interpretations of the results.
Level 1 358	At level 1, students can answer questions involving familiar contexts where all relevant information is present and the questions are clearly defined. They are able to identify information and to carry out routine procedures according to direct instructions in explicit situations. They can perform actions that are obvious and follow immediately from the given stimuli.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into mathematics literacy levels according to their scores. Exact cut point scores are as follows: below level 1 (a score less than or equal to 357.77); level 1 (a score greater than 357.77 and less than or equal to 420.07); level 2 (a score greater than 420.07 and less than or equal to 482.38); level 3 (a score greater than 482.38 and less than or equal to 544.68); level 4 (a score greater than 544.68 and less than or equal to 606.99); level 5 (a score greater than 606.99 and less than or equal to 669.30); and level 6 (a score greater than 669.30). Scores are reported on a scale from 0 to 1,000.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Figure M1. Percentage distribution of 15-year-old students in the United States and OECD countries on mathematics literacy scale, by proficiency level: 2009

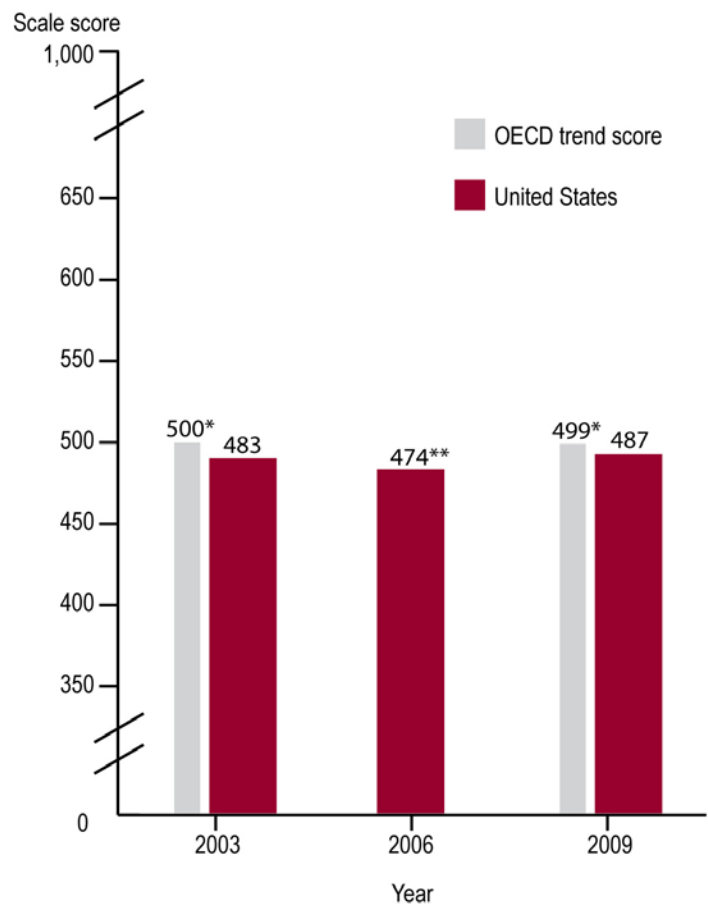


* $p < .05$. Significantly different from the corresponding Organization for Economic Cooperation and Development (OECD) average percentage at the .05 level of statistical significance.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into mathematics literacy levels according to their scores. Exact cut point scores are as follows: below level 1 (a score less than or equal to 357.77); level 1 (a score greater than 357.77 and less than or equal to 420.07); level 2 (a score greater than 420.07 and less than or equal to 482.38); level 3 (a score greater than 482.38 and less than or equal to 544.68); level 4 (a score greater than 544.68 and less than or equal to 606.99); level 5 (a score greater than 606.99 and less than or equal to 669.30); and level 6 (a score greater than 669.30). Scores are reported on a scale from 0 to 1,000. The OECD average is the average of the national averages of the OECD member countries, with each country weighted equally. Detail may not sum to totals because of rounding.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Figure M2. Average scores of 15-year-old students in the United States and OECD countries on mathematics literacy scale: 2003, 2006, and 2009



* $p < .05$. U.S. average is significantly different from the Organization for Economic Cooperation and Development (OECD) trend score average at the .05 level of statistical significance.
** $p < .05$. U.S. average in 2006 is significantly different from the U.S. average in 2009 at the .05 level of statistical significance.
NOTE: The OECD trend scores are based on the averages of the 29 countries that participated in both the 2003 and 2009 assessments, met all technical standards, and that are currently members of the OECD. The OECD trend score is not reported for 2006 because data were not available for all 29 comparable countries. The five current OECD members not included in the OECD averages used to report on trends in mathematics literacy include Chile, Estonia, Israel, and Slovenia, which did participate in 2003; and the United Kingdom, which did not meet Program for International Student Assessment (PISA) standards for the 2003 assessment. The PISA mathematics framework was revised in 2003. Because of changes in the framework, it is not possible to compare mathematics learning outcomes from PISA 2000 with those from PISA 2003, 2006, and 2009. Scores are reported on a scale from 0 to 1,000.
SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2003, 2006, and 2009.

Table M2. Average scores of 15-year-old students on mathematics literacy scale, by country: 2003, 2006, and 2009

Country	2003		2006		2009	
	Score	s.e.	Score	s.e.	Score	s.e.
OECD trend score ¹	500	0.6	498	0.5	499	0.5
<i>OECD countries</i>						
Australia	524	2.1	520	2.2	514	2.5
Austria	506	3.3	505	3.7	496	2.7
Belgium	529	2.3	520	3.0	515	2.3
Canada	532	1.8	527	2.0	527	1.6
Chile	—	†	411	4.6	421	3.1
Czech Republic	516	3.6	510	3.6	493	2.8
Denmark	514	2.7	513	2.6	503	2.6
Estonia	—	†	515	2.7	512	2.6
Finland	544	1.9	548	2.3	541	2.2
France	511	2.5	496	3.2	497	3.1
Germany	503	3.3	504	3.9	513	2.9
Greece	445	3.9	459	3.0	466	3.9
Hungary	490	2.8	491	2.9	490	3.5
Iceland	515	1.4	506	1.8	507	1.4
Ireland	503	2.4	501	2.8	487	2.5
Israel	—	†	442	4.3	447	3.3
Italy	466	3.1	462	2.3	483	1.9
Japan	534	4.0	523	3.3	529	3.3
Korea, Republic of	542	3.2	547	3.8	546	4.0
Luxembourg	493	1.0	490	1.1	489	1.2
Mexico	385	3.6	406	2.9	419	1.8
Netherlands	538	3.1	531	2.6	526	4.7
New Zealand	523	2.3	522	2.4	519	2.3
Norway	495	2.4	490	2.6	498	2.4
Poland	490	2.5	495	2.4	495	2.8
Portugal	466	3.4	466	3.1	487	2.9
Slovak Republic	498	3.3	492	2.8	497	3.1
Slovenia	—	†	504	1.0	501	1.2
Spain	485	2.4	480	2.3	483	2.1
Sweden	509	2.6	502	2.4	494	2.9
Switzerland	527	3.4	530	3.2	534	3.3
Turkey	423	6.7	424	4.9	445	4.4
United Kingdom ²	—	†	495	2.1	492	2.4
United States	483	2.9	474	4.0	487	3.6

See notes at end of table.

Table M2. Average scores of 15-year-old students on mathematics literacy scale, by country: 2003, 2006, and 2009—Continued

Country	2003		2006		2009	
	Score	s.e.	Score	s.e.	Score	s.e.
<i>Non-OECD countries</i>						
Albania	—	†	—	†	377	4.0
Argentina	—	†	381	6.2	388	4.1
Azerbaijan	—	†	476	2.3	431	2.8
Brazil	356	4.8	370	2.9	386	2.4
Bulgaria	—	†	413	6.1	428	5.9
<i>Chinese Taipei</i>	—	†	549	4.1	543	3.4
Colombia	—	†	370	3.8	381	3.2
Croatia	—	†	467	2.4	460	3.1
<i>Dubai-UAE</i>	—	†	—	†	453	1.1
<i>Hong Kong-China</i>	550	4.5	547	2.7	555	2.7
Indonesia	360	3.9	391	5.6	371	3.7
Jordan	—	†	384	3.3	387	3.7
Kazakhstan	—	†	—	†	405	3.0
Kyrgyz Republic	—	†	311	3.4	331	2.9
Latvia	483	3.7	486	3.0	482	3.1
Liechtenstein	536	4.1	525	4.2	536	4.1
Lithuania	—	†	486	2.9	477	2.6
<i>Macao-China</i>	527	2.9	525	1.3	525	0.9
Montenegro, Republic of ³	437	3.8	399	1.4	403	2.0
Panama	—	†	—	†	360	5.2
Peru	—	†	—	†	365	4.0
Qatar	—	†	318	1.0	368	0.7
Romania	—	†	415	4.2	427	3.4
Russian Federation	468	4.2	476	3.9	468	3.3
Serbia, Republic of ³	437	3.8	435	3.5	442	2.9
<i>Shanghai-China</i>	—	†	—	†	600	2.8
Singapore	—	†	—	†	562	1.4
Thailand	417	3.0	417	2.3	419	3.2
Trinidad and Tobago	—	†	—	†	414	1.3
Tunisia	359	2.5	365	4.0	371	3.0
Uruguay	422	3.3	427	2.6	427	2.6

— Not available.

† Not applicable.

¹ The Organization for Economic Cooperation and Development (OECD) trend scores are based on the averages of the 29 countries that participated in both the 2003 and 2009 assessments, met all technical standards, and that are currently members of the OECD. The five current OECD members not included in the OECD averages used to report on trends in mathematics literacy include Chile, Estonia, Israel, and Slovenia, which did participate in 2003; and the United Kingdom, which did not meet Program for International Student Assessment (PISA) standards for the 2003 assessment.

² Because of low response rates, 2003 data for the United Kingdom are not presented.

³ The Republics of Montenegro and Serbia were a united country under the PISA 2003 assessment.

NOTE: The PISA mathematics framework was revised in 2003. Because of changes in the framework, it is not possible to compare mathematics learning outcomes from PISA 2000 with those from PISA 2003, 2006, and 2009. Because PISA is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries and are not included in the OECD average. Scores are reported on a scale from 0 to 1,000. Standard error is noted by s.e. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2003, 2006, and 2009.

Table M3. Scores of 15-year-old students on mathematics literacy scale at selected percentiles, by country:
2009

Country	Percentile													
	5 th		10 th		25 th		50 th		75 th		90 th		95 th	
	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.
OECD average	343	0.9	376	0.7	433	0.6	497	0.6	560	0.6	613	0.7	643	0.8
<i>OECD countries</i>														
Australia	357	3.3	393	2.8	451	2.5	516	2.5	580	3.1	634	3.9	665	5.0
Austria	338	6.6	370	4.4	425	3.5	497	3.6	566	3.5	620	3.5	650	3.5
Belgium	335	5.3	373	4.9	444	3.1	522	2.9	593	2.4	646	3.0	675	3.2
Canada	379	3.0	413	2.7	468	2.0	530	2.0	588	1.9	638	2.2	665	2.2
Chile	293	4.6	322	3.8	366	3.1	418	3.3	473	4.2	527	5.1	559	5.8
Czech Republic	342	5.6	374	4.3	428	3.5	490	3.3	557	3.8	615	4.3	649	4.6
Denmark	358	4.4	390	4.0	445	3.1	505	2.9	564	3.3	614	3.4	644	4.6
Estonia	378	6.0	409	3.5	458	3.7	513	2.9	567	2.7	616	3.6	643	3.6
Finland	399	4.4	431	3.7	487	3.0	544	2.7	599	2.5	644	2.6	669	3.6
France	321	5.8	361	6.3	429	4.8	502	3.9	570	3.7	622	3.9	652	5.4
Germany	347	5.0	380	4.7	443	4.4	517	3.5	585	3.1	638	3.5	666	3.7
Greece	319	7.3	352	5.9	406	4.4	467	4.1	527	3.6	580	4.1	613	4.4
Hungary	334	8.4	370	7.1	428	4.6	493	4.2	554	4.5	608	5.6	637	5.6
Iceland	352	4.1	388	3.4	447	2.0	509	1.7	569	2.0	623	2.8	652	3.3
Ireland	338	5.7	376	4.4	432	3.1	493	3.0	548	2.8	591	3.1	617	4.3
Israel	272	6.7	310	6.1	374	4.6	450	3.5	520	4.2	581	5.2	615	5.2
Italy	330	3.1	363	2.4	420	1.9	485	2.2	548	2.5	602	2.5	632	2.8
Japan	370	6.4	407	5.4	468	4.4	532	3.4	595	3.7	648	4.8	677	5.4
Korea, Republic of	397	8.4	430	6.8	486	5.3	549	4.3	609	4.3	659	4.6	689	6.5
Luxembourg	324	3.9	360	3.1	423	1.7	491	1.8	560	2.2	613	2.5	643	2.5
Mexico	289	3.2	318	2.6	366	2.2	419	1.9	472	2.1	520	2.8	547	3.3
Netherlands	378	5.6	406	5.6	460	6.8	529	6.0	593	4.4	640	4.4	665	3.9
New Zealand	355	4.9	392	4.4	454	2.8	523	2.9	589	3.1	642	3.9	671	3.4
Norway	354	4.1	386	3.6	441	3.2	499	2.9	557	2.9	608	3.4	636	4.0
Poland	348	5.2	380	3.8	434	3.3	495	3.0	557	3.2	609	4.1	638	4.6
Portugal	334	3.8	367	3.5	424	3.4	488	3.4	551	3.4	605	4.4	635	5.1
Slovak Republic	342	6.3	376	4.7	432	3.7	497	3.7	561	3.8	621	5.4	654	6.4
Slovenia	345	3.6	379	2.4	435	2.5	501	1.8	569	2.3	628	3.5	659	3.6
Spain	328	4.0	364	2.9	424	2.5	488	2.4	546	2.3	597	2.3	625	2.9
Sweden	339	4.4	374	4.2	432	3.1	496	3.5	560	3.3	613	3.9	643	4.1
Switzerland	363	4.8	401	3.6	468	4.2	539	3.6	604	3.9	658	4.1	689	4.8
Turkey	304	5.2	331	3.6	378	3.8	439	4.7	506	6.3	574	9.0	613	12.2
United Kingdom	348	3.4	380	3.1	434	3.0	493	2.9	552	3.2	606	3.9	635	3.2
United States	337	4.3	368	4.3	425	3.9	488	3.8	551	4.9	607	4.6	637	5.9

See notes at end of table.

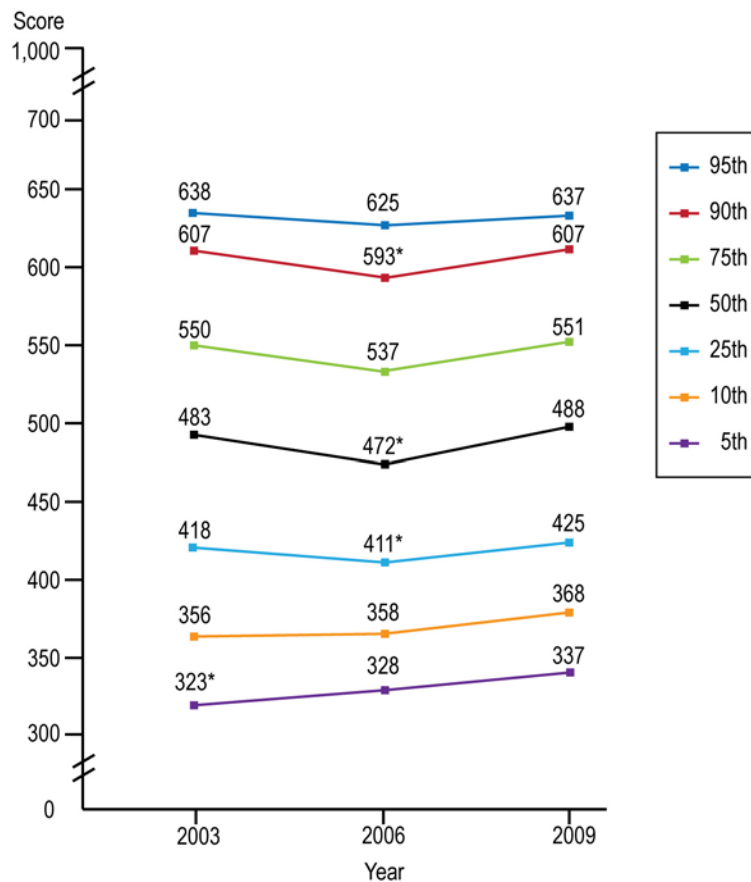
**Table M3. Scores of 15-year-old students on mathematics literacy scale at selected percentiles, by country:
2009—Continued**

Country	Percentile													
	5 th		10 th		25 th		50 th		75 th		90 th		95 th	
	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.
<i>Non-OECD countries</i>														
Albania	226	7.0	261	5.0	317	5.2	380	4.1	438	4.8	493	5.7	526	6.5
Argentina	231	7.9	271	6.0	327	4.3	388	4.4	451	5.0	509	7.1	543	7.0
Azerbaijan	334	3.0	354	2.7	387	2.9	427	2.8	469	3.2	512	5.2	541	7.0
Brazil	261	3.0	287	2.7	331	2.3	381	2.6	435	3.3	493	4.7	531	5.9
Bulgaria	269	6.9	302	5.8	359	6.2	428	6.5	496	6.6	555	9.0	593	12.3
<i>Chinese Taipei</i>	366	5.0	405	3.8	471	3.6	547	4.2	618	4.6	675	5.4	709	6.6
Colombia	259	5.8	286	5.1	330	4.0	379	3.4	431	3.4	479	4.2	509	4.2
Croatia	315	4.8	347	4.1	399	3.5	460	3.6	521	3.8	574	5.4	606	5.6
<i>Dubai-UAE</i>	294	3.1	326	2.6	381	2.3	450	1.7	523	2.1	584	3.3	619	3.6
<i>Hong Kong-China</i>	390	5.1	428	4.9	492	3.5	559	3.0	622	3.1	673	3.9	703	4.7
Indonesia	260	4.9	284	4.6	324	3.7	369	3.8	416	4.6	462	6.4	493	8.6
Jordan	249	7.8	281	4.8	333	3.5	389	3.7	443	4.4	490	5.5	520	6.9
Kazakhstan	276	4.3	303	3.3	347	3.5	401	3.3	458	4.3	514	5.3	548	7.0
Kyrgyz Republic	204	4.9	231	3.9	278	3.2	328	3.0	382	3.8	436	5.3	473	7.0
Latvia	352	4.9	379	4.5	427	3.7	483	3.8	537	3.8	584	3.8	612	3.7
Liechtenstein	384	17.8	421	8.9	484	7.9	543	6.5	593	5.4	637	11.4	670	14.9
Lithuania	332	5.3	363	4.2	417	3.0	477	2.9	537	3.1	590	4.0	621	5.4
<i>Macao-China</i>	382	2.6	415	2.7	468	1.6	527	1.9	584	1.3	634	1.6	663	2.5
Montenegro, Republic of	263	4.0	295	4.4	346	2.8	403	2.3	458	2.2	509	2.7	543	3.9
Panama	235	8.2	261	7.0	306	5.6	355	5.5	408	6.8	466	8.6	503	8.8
Peru	222	4.5	252	4.0	303	3.7	363	4.2	424	5.2	480	6.3	516	9.0
Qatar	227	2.4	255	1.5	300	1.2	355	1.3	425	1.5	506	2.4	557	3.5
Romania	299	4.4	326	4.1	372	4.0	426	3.8	481	3.6	530	5.4	560	6.5
Russian Federation	329	5.1	360	4.5	411	4.2	467	3.5	524	3.8	576	5.3	609	7.2
Serbia, Republic of	295	4.8	327	4.3	380	3.7	441	3.5	504	3.2	560	4.3	592	5.3
<i>Shanghai-China</i>	421	7.1	462	5.0	531	4.0	608	3.4	674	3.2	726	4.2	757	4.6
Singapore	383	3.0	422	4.1	490	2.9	568	2.4	638	2.0	693	2.5	725	3.8
Thailand	295	4.5	321	4.2	365	3.5	415	3.2	469	3.7	522	5.4	554	6.8
Trinidad and Tobago	252	3.9	287	2.7	342	2.5	412	2.1	484	2.5	546	1.8	580	2.4
Tunisia	247	4.8	273	4.3	318	3.7	371	3.1	423	3.4	471	4.9	499	6.6
Uruguay	278	3.9	310	4.0	364	3.4	426	3.2	490	3.1	546	4.1	578	4.5

NOTE: This table shows the threshold (or cut point) score for the following: (a) 5th percentile – the bottom 5 percent of students; (b) 10th percentile – the bottom 10 percent of students; (c) 25th percentile – the bottom quarter of students; (d) 50th percentile – the median (half the students scored below the cut point and half scored above it); (e) 75th percentile – the top quarter of students; (f) 90th percentile – the top 10 percent of students; and (g) 95th percentile – the top 5 percent of students. The percentile ranges are specific to each country's distribution of scores and to each assessment administration, enabling users to compare scores at the cut points across countries and over time. The Organization for Economic Cooperation and Development (OECD) average is the average of the national averages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries. Scores are reported on a scale from 0 to 1,000. Standard error is noted by s.e. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Figure M3. Scores of U.S. 15-year-old students on mathematics literacy scale at selected percentiles: 2003, 2006, and 2009



* $p < .05$. Significantly different from the 2009 score at the .05 level of statistical significance.

NOTE: This figure shows the threshold (or cut point) score for the following: (a) 5th percentile – the bottom 5 percent of students; (b) 10th percentile – the bottom 10 percent of students; (c) 25th percentile – the bottom quarter of students; (d) 50th percentile – the median (half the students scored below the cut point and half scored above it); (e) 75th percentile – the top quarter of students; (f) 90th percentile – the top 10 percent of students; and (g) 95th percentile – the top 5 percent of students. The percentile ranges are specific to each country's distribution of scores and to each assessment administration, enabling users to compare scores at the cut points across countries and over time. The Program for International Student Assessment (PISA) mathematics framework was revised in 2003. Because of changes in the framework, it is not possible to compare mathematics learning outcomes from PISA 2000 with those from PISA 2003, 2006, and 2009. Scores are reported on a scale from 0 to 1,000.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2003, 2006, and 2009.

Table M3A. Scores of U.S. 15-year-old students on mathematics literacy scale at selected percentiles: 2003, 2006, and 2009

Selected percentiles	2003		2006		2009	
	Score	s.e.	Score	s.e.	Score	s.e.
95th percentile	638	5.1	625	4.8	637	5.9
90th percentile	607	3.9	593*	4.8	607	4.6
75th percentile	550	3.4	537	5.0	551	4.9
50th percentile	483	3.1	472*	4.4	488	3.8
25th percentile	418	3.7	411*	4.8	425	3.9
10th percentile	356	4.5	358	5.8	368	4.3
5th percentile	323*	4.9	328	7.6	337	4.3
Mean	483	2.9	474*	4.4	487	3.6

* $p < .05$. Significantly different from the 2009 score at the .05 level of statistical significance.

NOTE: This table shows the threshold (or cut point) score for the following: (a) 5th percentile – the bottom 5 percent of students; (b) 10th percentile – the bottom 10 percent of students; (c) 25th percentile – the bottom quarter of students; (d) 50th percentile – the median (half the students scored below the cut point and half scored above it); (e) 75th percentile – the top quarter of students; (f) 90th percentile – the top 10 percent of students; and (g) 95th percentile – the top 5 percent of students. The percentile ranges are specific to each country's distribution of scores and to each assessment administration, enabling users to compare scores at the cut points across countries and over time. The Program for International Student Assessment (PISA) mathematics framework was revised in 2003. Because of changes in the framework, it is not possible to compare mathematics learning outcomes from PISA 2000 with those from PISA 2003, 2006, and 2009. Scores are reported on a scale from 0 to 1,000. Standard error is noted by s.e.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2003, 2006, and 2009.

Table M4. Percentage distribution of 15-year-old students on mathematics literacy scale, by proficiency level and country: 2009

Country	Below level 1		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
OECD average	8.0	0.12	14.0	0.13	22.0	0.15	24.3	0.17	18.9	0.15	9.6	0.12	3.1	0.08
<i>OECD countries</i>														
Australia	5.1	0.33	10.7	0.53	20.3	0.61	25.8	0.54	21.7	0.56	11.9	0.54	4.5	0.56
Austria	7.8	0.75	15.4	0.90	21.2	0.88	23.0	0.89	19.6	0.93	9.9	0.70	3.0	0.35
Belgium	7.7	0.63	11.3	0.54	17.5	0.69	21.8	0.73	21.3	0.76	14.6	0.56	5.8	0.44
Canada	3.1	0.25	8.3	0.42	18.8	0.48	26.5	0.86	25.0	0.68	13.9	0.45	4.4	0.27
Chile	21.7	1.19	29.4	1.09	27.3	0.98	14.8	0.96	5.6	0.59	1.2	0.29	‡	†
Czech Republic	7.0	0.83	15.3	0.83	24.2	1.00	24.4	1.09	17.4	0.81	8.5	0.64	3.2	0.39
Denmark	5.0	0.49	12.1	0.78	23.0	0.91	27.4	1.06	21.0	0.89	9.1	0.83	2.5	0.47
Estonia	3.0	0.42	9.6	0.67	22.7	0.86	29.9	0.94	22.7	0.81	9.8	0.79	2.2	0.43
Finland	1.7	0.25	6.1	0.45	15.6	0.83	27.1	0.95	27.8	0.87	16.7	0.79	4.9	0.53
France	9.5	0.88	13.1	1.06	19.9	0.94	23.8	1.12	20.1	1.01	10.4	0.72	3.3	0.48
Germany	6.4	0.63	12.2	0.72	18.8	0.88	23.1	0.87	21.7	0.92	13.2	0.87	4.6	0.46
Greece	11.3	1.22	19.0	1.01	26.4	1.25	24.0	1.05	13.6	0.78	4.9	0.56	0.8	0.16
Hungary	8.1	0.99	14.2	0.95	23.2	1.18	26.0	1.24	18.4	1.02	8.1	0.79	2.0	0.45
Iceland	5.7	0.43	11.2	0.52	21.3	0.88	27.3	0.90	20.9	0.90	10.5	0.67	3.1	0.40
Ireland	7.3	0.64	13.5	0.74	24.5	1.09	28.6	1.20	19.4	0.92	5.8	0.59	0.9	0.20
Israel	20.6	1.17	18.9	0.90	22.5	0.92	20.1	0.87	12.0	0.71	4.7	0.51	1.2	0.28
Italy	9.1	0.45	15.9	0.48	24.2	0.59	24.6	0.48	17.3	0.57	7.4	0.40	1.6	0.15
Japan	4.0	0.57	8.5	0.65	17.4	0.90	25.7	1.08	23.5	1.04	14.7	0.88	6.2	0.78
Korea, Republic of	1.9	0.49	6.2	0.72	15.6	0.99	24.4	1.21	26.3	1.30	17.7	0.97	7.8	0.96
Luxembourg	9.6	0.53	14.3	0.57	22.7	0.72	23.1	0.98	19.0	0.82	9.0	0.61	2.3	0.36
Mexico	21.9	0.79	28.9	0.59	28.3	0.61	15.6	0.56	4.7	0.36	0.7	0.11	#	†
Netherlands	2.8	0.60	10.6	1.33	19.0	1.37	23.9	0.98	23.9	1.25	15.4	1.18	4.4	0.52
New Zealand	5.3	0.52	10.1	0.54	19.1	0.84	24.4	0.88	22.2	0.98	13.6	0.74	5.3	0.45
Norway	5.5	0.50	12.6	0.83	24.3	0.93	27.5	1.02	19.7	0.86	8.4	0.58	1.8	0.34
Poland	6.1	0.55	14.3	0.74	24.0	0.88	26.1	0.77	19.0	0.85	8.2	0.61	2.2	0.41
Portugal	8.4	0.62	15.3	0.83	23.9	0.93	25.0	1.03	17.7	0.79	7.7	0.63	1.9	0.35
Slovak Republic	7.0	0.68	14.0	0.79	23.2	1.08	25.0	1.54	18.1	1.24	9.1	0.69	3.6	0.63
Slovenia	6.5	0.40	13.8	0.61	22.5	0.67	23.9	0.69	19.0	0.79	10.3	0.57	3.9	0.36
Spain	9.1	0.48	14.6	0.58	23.9	0.58	26.6	0.63	17.7	0.62	6.7	0.39	1.3	0.16
Sweden	7.5	0.64	13.5	0.71	23.4	0.81	25.2	0.75	19.0	0.88	8.9	0.64	2.5	0.35
Switzerland	4.5	0.41	9.0	0.64	15.9	0.63	23.0	0.92	23.5	0.80	16.3	0.78	7.8	0.75
Turkey	17.7	1.35	24.4	1.11	25.2	1.18	17.4	1.07	9.6	0.90	4.4	0.91	1.3!	0.46
United Kingdom	6.2	0.47	13.9	0.72	24.9	0.88	27.2	1.10	17.9	0.96	8.1	0.63	1.8	0.27
United States	8.1	0.72	15.3	0.98	24.4	0.97	25.2	0.95	17.1	0.93	8.0	0.85	1.9	0.46

See notes at end of table.

Table M4. Percentage distribution of 15-year-old students on mathematics literacy scale, by proficiency level and country: 2009—Continued

Country	Below level 1		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
<i>Non-OECD countries</i>														
Albania	40.5	1.76	27.2	1.22	20.2	1.25	9.1	0.85	2.6	0.58	0.4!	0.16	#	†
Argentina	37.2	1.75	26.4	1.11	20.8	1.09	10.9	0.95	3.9	0.66	0.8!	0.26	‡	†
Azerbaijan	11.5	0.96	33.8	1.24	35.3	1.29	14.8	1.04	3.6	0.51	0.9!	0.34	‡	†
Brazil	38.1	1.25	31.0	0.91	19.0	0.75	8.1	0.64	3.0	0.32	0.7	0.19	‡	†
Bulgaria	24.5	1.91	22.7	1.08	23.4	1.11	17.5	1.36	8.2	0.90	3.0	0.70	0.8!	0.36
<i>Chinese Taipei</i>	4.2	0.48	8.6	0.65	15.5	0.68	20.9	0.88	22.2	0.86	17.2	0.92	11.3	1.16
Colombia	38.8	2.02	31.6	1.30	20.3	1.28	7.5	0.66	1.6	0.33	‡	†	#	†
Croatia	12.4	0.85	20.8	0.95	26.7	0.83	22.7	0.97	12.5	0.84	4.3	0.51	0.6!	0.22
<i>Dubai-UAE</i>	17.6	0.49	21.2	0.59	23.0	0.79	19.6	0.63	12.1	0.55	5.3	0.39	1.2	0.19
<i>Hong Kong-China</i>	2.6	0.40	6.2	0.53	13.2	0.67	21.9	0.84	25.4	0.91	19.9	0.82	10.8	0.78
Indonesia	43.6	2.21	33.0	1.53	16.9	1.14	5.4	0.91	0.9!	0.32	‡	†	#	†
Jordan	35.4	1.67	29.9	1.20	22.9	1.03	9.5	0.94	2.1	0.44	‡	†	#	†
Kazakhstan	29.6	1.31	29.6	0.94	23.5	0.88	12.0	0.80	4.2	0.48	0.9!	0.29	‡	†
Kyrgyz Republic	64.8	1.43	21.8	0.98	9.3	0.76	3.3	0.51	0.7!	0.24	#	†	#	†
Latvia	5.8	0.69	16.7	1.15	27.2	1.04	28.2	1.08	16.4	1.01	5.1	0.50	0.6	0.15
Liechtenstein	3.0!	0.99	6.5	1.61	15.0	2.18	26.2	2.26	31.2	3.25	13.0	2.45	5.0	1.42
Lithuania	9.1	0.79	17.3	0.84	26.1	1.10	25.3	0.98	15.4	0.77	5.7	0.56	1.3	0.26
<i>Macao-China</i>	2.8	0.25	8.2	0.47	19.6	0.58	27.8	0.90	24.5	0.78	12.8	0.43	4.3	0.28
Montenegro, Republic of	29.7	1.07	28.7	1.01	24.6	1.04	12.2	0.68	3.8	0.35	0.9	0.20	‡	†
Panama	51.5	2.90	27.3	1.72	13.9	1.51	5.6	0.92	1.4	0.36	‡	†	#	†
Peru	47.6	1.81	25.9	1.16	16.9	1.26	6.8	0.70	2.1	0.43	0.5!	0.18	‡	†
Qatar	51.1	0.56	22.7	0.64	13.1	0.48	7.2	0.35	4.2	0.25	1.5	0.17	0.3	0.08
Romania	19.5	1.42	27.5	1.15	28.6	1.39	17.3	1.02	5.9	0.77	1.2	0.33	‡	†
Russian Federation	9.6	0.92	19.0	1.16	28.5	1.03	25.0	1.00	12.7	0.87	4.3	0.57	1.0	0.27
Serbia, Republic of	17.6	1.04	22.9	0.84	26.5	1.07	19.9	0.97	9.5	0.62	2.9	0.41	0.6	0.18
<i>Shanghai-China</i>	1.4	0.26	3.4	0.38	8.7	0.63	15.2	0.79	20.8	0.79	23.8	0.80	26.6	1.19
Singapore	3.0	0.26	6.8	0.57	13.1	0.56	18.7	0.80	22.8	0.62	20.0	0.87	15.6	0.63
Thailand	22.2	1.37	30.3	0.92	27.3	1.09	14.0	0.85	4.9	0.57	1.0	0.27	‡	†
Trinidad and Tobago	30.1	0.79	23.1	0.97	21.2	0.89	15.4	0.63	7.7	0.44	2.1	0.25	0.3!	0.15
Tunisia	43.4	1.66	30.2	1.46	18.7	0.90	6.1	0.69	1.3!	0.44	‡	†	#	†
Uruguay	22.9	1.16	24.6	1.08	25.1	0.99	17.0	0.73	7.9	0.55	2.1	0.34	0.3!	0.12

† Not applicable.

Rounds to zero.

! Interpret data with caution.

‡ Reporting standards not met.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into mathematics literacy levels according to their scores. Exact cut point scores are as follows: below level 1 (a score less than or equal to 357.77); level 1 (a score greater than 357.77 and less than or equal to 420.07); level 2 (a score greater than 420.07 and less than or equal to 482.38); level 3 (a score greater than 482.38 and less than or equal to 544.68); level 4 (a score greater than 544.68 and less than or equal to 606.99); level 5 (a score greater than 606.99 and less than or equal to 669.30); and level 6 (a score greater than 669.30). Scores are reported on a scale from 0 to 1,000. The Organization for Economic Cooperation and Development (OECD) average is the average of the national percentages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries and are not included in the OECD average. Standard error is noted by s.e. Detail may not sum to totals because of rounding. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table M4A. Percentage of 15-year-old students on mathematics literacy scale within selected proficiency level ranges, by country: 2009

Country	Below level 2		Level 4 and above		Level 5 and above	
	Percent	s.e.	Percent	s.e.	Percent	s.e.
OECD average	22.0	0.19	31.6*	0.22	12.7*	0.15
<i>OECD countries</i>						
Australia	15.9*	0.67	38.1*	1.10	16.4*	0.91
Austria	23.2	1.15	32.5*	1.20	12.9*	0.87
Belgium	19.1*	0.82	41.7*	1.00	20.4*	0.74
Canada	11.5*	0.53	43.3*	0.93	18.3*	0.58
Chile	51.0*	1.74	6.9*	0.74	1.3*	0.35
Czech Republic	22.3	1.14	29.1	1.19	11.6	0.87
Denmark	17.1*	0.92	32.5*	1.33	11.6	0.81
Estonia	12.6*	0.88	34.7*	1.19	12.1	0.82
Finland	7.8*	0.54	49.5*	1.18	21.7*	0.91
France	22.5	1.25	33.8*	1.45	13.7*	0.96
Germany	18.6*	1.10	39.5*	1.31	17.8*	0.92
Greece	30.3*	1.77	19.3*	1.15	5.7*	0.58
Hungary	22.3	1.48	28.5	1.53	10.1	1.07
Iceland	17.0*	0.64	34.5*	0.81	13.6*	0.59
Ireland	20.8	0.97	26.1	1.20	6.7*	0.65
Israel	39.5*	1.34	17.9*	1.14	5.9*	0.66
Italy	24.9	0.63	26.3	0.88	9.0	0.50
Japan	12.5*	1.03	44.4*	1.48	20.9*	1.24
Korea, Republic of	8.1*	1.02	51.9*	1.88	25.6*	1.60
Luxembourg	23.9	0.61	30.3	0.76	11.4	0.65
Mexico	50.8*	0.96	5.4*	0.44	0.7*	0.12
Netherlands	13.4*	1.44	43.8*	2.36	19.9*	1.52
New Zealand	15.4*	0.86	41.1*	1.10	18.9*	0.88
Norway	18.2*	0.92	29.9	1.16	10.2	0.71
Poland	20.5	1.06	29.4	1.19	10.4	0.87
Portugal	23.7	1.12	27.3	1.24	9.6	0.84
Slovak Republic	21.0	1.16	30.8	1.57	12.7*	0.99
Slovenia	20.3*	0.55	33.2*	0.81	14.2*	0.57
Spain	23.7	0.83	25.7	0.88	8.0	0.46
Sweden	21.1	1.04	30.3	1.23	11.4	0.83
Switzerland	13.5*	0.84	47.6*	1.45	24.1*	1.36
Turkey	42.1*	1.82	15.3*	1.65	5.6*	1.22
United Kingdom	20.2*	0.90	27.7	1.25	9.8	0.71
United States	23.4	1.34	27.0	1.63	9.9	0.97

See notes at end of table.

Table M4A. Percentage of 15-year-old students on mathematics literacy scale within selected proficiency level ranges, by country: 2009—Continued

Country	Below level 2		Level 4 and above		Level 5 and above	
	Percent	s.e.	Percent	s.e.	Percent	s.e.
<i>Non-OECD countries</i>						
Albania	67.7*	1.91	3.1*	0.60	0.4!*	0.16
Argentina	63.6*	1.95	4.8*	0.76	0.9!*	0.29
Azerbaijan	45.3*	1.82	4.6*	0.78	1.1!*	0.42
Brazil	69.1*	1.22	3.8*	0.49	0.8*	0.22
Bulgaria	47.1*	2.51	12.0*	1.64	3.8*	0.98
Chinese Taipei	12.8*	0.76	50.8*	1.41	28.6*	1.46
Colombia	70.4*	1.59	1.7*	0.37	‡	†
Croatia	33.2*	1.44	17.4*	1.18	4.9*	0.66
Dubai-UAE	38.8*	0.57	18.5*	0.49	6.5*	0.43
Hong Kong-China	8.8*	0.70	56.0*	1.26	30.7*	1.18
Indonesia	76.7*	1.91	1.0!*	0.34	‡	†
Jordan	65.3*	1.89	2.4*	0.50	‡	†
Kazakhstan	59.1*	1.50	5.4*	0.76	1.2!*	0.44
Kyrgyz Republic	86.6*	1.15	0.7!*	0.23	#	†
Latvia	22.6	1.42	22.1*	1.36	5.7*	0.57
Liechtenstein	9.5*	1.78	49.3*	2.79	18.1*	2.42
Lithuania	26.3	1.19	22.3*	1.06	7.0*	0.69
Macao-China	11.0*	0.49	41.7*	0.73	17.1*	0.45
Montenegro, Republic of	58.4*	1.08	4.8*	0.41	1.0*	0.20
Panama	78.8*	2.18	1.8*	0.52	‡	†
Peru	73.5*	1.81	2.7*	0.61	0.6!*	0.20
Qatar	73.8*	0.43	6.0*	0.25	1.8*	0.15
Romania	47.0*	1.95	7.2*	1.03	1.3*	0.34
Russian Federation	28.6*	1.52	17.9*	1.29	5.2*	0.76
Serbia, Republic of	40.6*	1.39	13.0*	0.85	3.5*	0.53
Shanghai-China	4.9*	0.54	71.2*	1.09	50.4*	1.23
Singapore	9.8*	0.57	58.4*	0.70	35.6*	0.77
Thailand	52.5*	1.61	6.1*	0.85	1.3!*	0.43
Trinidad and Tobago	53.2*	0.73	10.2*	0.37	2.5*	0.30
Tunisia	73.6*	1.45	1.6!*	0.56	‡	†
Uruguay	47.6*	1.26	10.3*	0.75	2.4*	0.36

† Not applicable.

Rounds to zero.

! Interpret data with caution.

‡ Reporting standards not met.




* $p < .05$. Significantly different from the U.S. average at the .05 level of statistical significance.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into reading literacy levels according to their scores. Exact cut point scores are as follows: below level 1 (a score less than or equal to 357.77); level 1 (a score greater than 357.77 and less than or equal to 420.07); level 2 (a score greater than 420.07 and less than or equal to 482.38); level 3 (a score greater than 482.38 and less than or equal to 544.68); level 4 (a score greater than 544.68 and less than or equal to 606.99); level 5 (a score greater than 606.99 and less than or equal to 669.30); and level 6 (a score greater than 669.30). Scores are reported on a scale from 0 to 1,000. The Organization for Economic Cooperation and Development (OECD) average is the average of the national percentages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries. Standard error is noted by s.e. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table S1. Average scores of 15-year-old students on science literacy scale, by country: 2009

Science literacy scale			Science literacy scale		
Country	Score	s.e.	Country	Score	s.e.
OECD average	501	0.5			
<i>OECD countries</i>			<i>Non-OECD countries</i>		
Finland	554	2.3	Shanghai-China	575	2.3
Japan	539	3.4	Hong Kong-China	549	2.8
Korea, Republic of	538	3.4	Singapore	542	1.4
New Zealand	532	2.6	Chinese Taipei	520	2.6
Canada	529	1.6	Liechtenstein	520	3.4
Estonia	528	2.7	Macao-China	511	1.0
Australia	527	2.5	Latvia	494	3.1
Netherlands	522	5.4	Lithuania	491	2.9
Germany	520	2.8	Croatia	486	2.8
Switzerland	517	2.8	Russian Federation	478	3.3
United Kingdom	514	2.5	Dubai-UAE	466	1.2
Slovenia	512	1.1	Serbia, Republic of	443	2.4
Poland	508	2.4	Bulgaria	439	5.9
Ireland	508	3.3	Romania	428	3.4
Belgium	507	2.5	Uruguay	427	2.6
Hungary	503	3.1	Thailand	425	3.0
United States	502	3.6	Jordan	415	3.5
Czech Republic	500	3.0	Trinidad and Tobago	410	1.2
Norway	500	2.6	Brazil	405	2.4
Denmark	499	2.5	Colombia	402	3.6
France	498	3.6	Montenegro, Republic of	401	2.0
Iceland	496	1.4	Argentina	401	4.6
Sweden	495	2.7	Tunisia	401	2.7
Austria	494	3.2	Kazakhstan	400	3.1
Portugal	493	2.9	Albania	391	3.9
Slovak Republic	490	3.0	Indonesia	383	3.8
Italy	489	1.8	Qatar	379	0.9
Spain	488	2.1	Panama	376	5.7
Luxembourg	484	1.2	Azerbaijan	373	3.1
Greece	470	4.0	Peru	369	3.5
Israel	455	3.1	Kyrgyz Republic	330	2.9
Turkey	454	3.6			
Chile	447	2.9			
Mexico	416	1.8			

-  Average is higher than the U.S. average
-  Average is not measurably different from the U.S. average
-  Average is lower than the U.S. average

NOTE: The Organization for Economic Cooperation and Development (OECD) average is the average of the national averages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries and are not included in the OECD average. Countries are ordered on the basis of average scores, from highest to lowest within the OECD countries and non-OECD countries. Scores are reported on a scale from 0 to 1,000. Score differences as noted between the United States and other countries (as well as between the United States and the OECD average) are significantly different at the .05 level of statistical significance. Standard error is noted by s.e. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

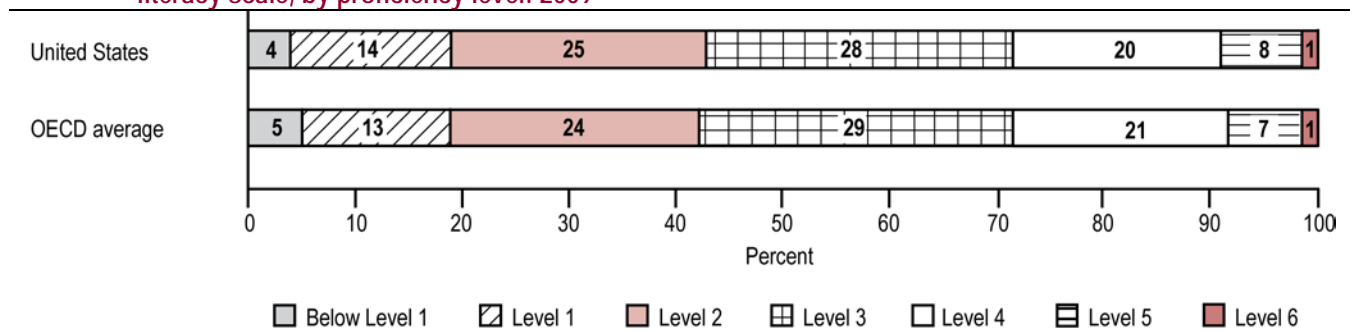
Exhibit S1. Description of PISA proficiency levels on science literacy scale: 2009

Proficiency level and lower cut point score	Task descriptions
Level 6 708	At level 6, students can consistently identify, explain and apply scientific knowledge and knowledge about science in a variety of complex life situations. They can link different information sources and explanations and use evidence from those sources to justify decisions. They clearly and consistently demonstrate advanced scientific thinking and reasoning, and they demonstrate willingness to use their scientific understanding in support of solutions to unfamiliar scientific and technological situations. Students at this level can use scientific knowledge and develop arguments in support of recommendations and decisions that centre on personal, social or global situations.
Level 5 633	At level 5, students can identify the scientific components of many complex life situations, apply both scientific concepts and knowledge about science to these situations, and can compare, select and evaluate appropriate scientific evidence for responding to life situations. Students at this level can use well-developed inquiry abilities, link knowledge appropriately and bring critical insights to situations. They can construct explanations based on evidence and arguments based on their critical analysis.
Level 4 559	At level 4, students can work effectively with situations and issues that may involve explicit phenomena requiring them to make inferences about the role of science or technology. They can select and integrate explanations from different disciplines of science or technology and link those explanations directly to aspects of life situations. Students at this level can reflect on their actions and they can communicate decisions using scientific knowledge and evidence.
Level 3 484	At level 3, students can identify clearly described scientific issues in a range of contexts. They can select facts and knowledge to explain phenomena and apply simple models or inquiry strategies. Students at this level can interpret and use scientific concepts from different disciplines and can apply them directly. They can develop short statements using facts and make decisions based on scientific knowledge.
Level 2 410	At level 2, students have adequate scientific knowledge to provide possible explanations in familiar contexts or draw conclusions based on simple investigations. They are capable of direct reasoning and making literal interpretations of the results of scientific inquiry or technological problem solving.
Level 1 335	At level 1, students have such a limited scientific knowledge that it can only be applied to a few, familiar situations. They can present scientific explanations that are obvious and follow explicitly from given evidence.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into science literacy levels according to their scores. Exact cut point scores are as follows: below level 1 (a score less than or equal to 334.94); level 1 (a score greater than 334.94 and less than or equal to 409.54); level 2 (a score greater than 409.54 and less than or equal to 484.14); level 3 (a score greater than 484.14 and less than or equal to 558.73); level 4 (a score greater than 558.73 and less than or equal to 633.33); level 5 (a score greater than 633.33 and less than or equal to 707.93); and level 6 (a score greater than 707.93). Scores are reported on a scale from 0 to 1,000.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

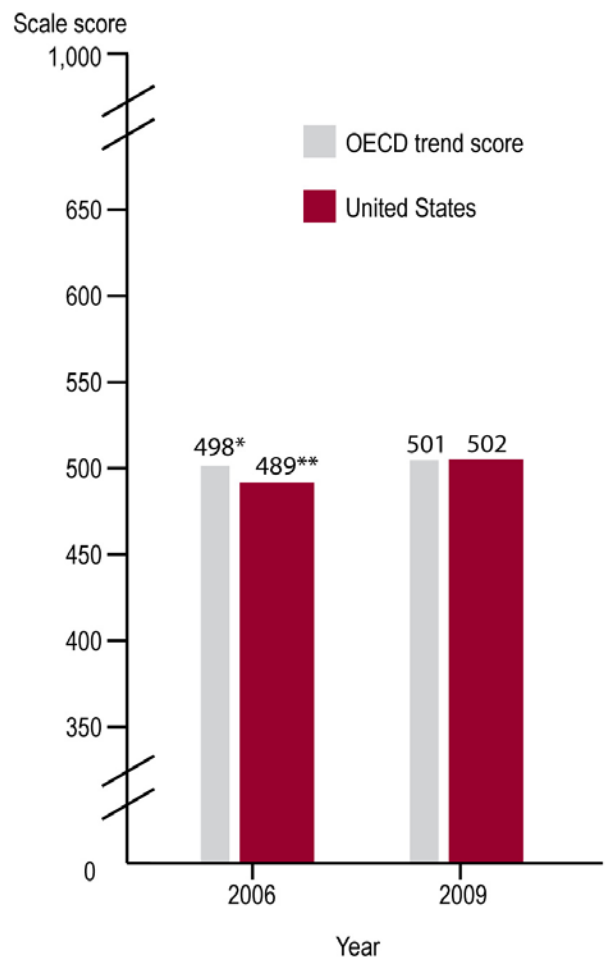
Figure S1. Percentage distribution of 15-year-old students in the United States and OECD countries on science literacy scale, by proficiency level: 2009



NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into science literacy levels according to their scores. Exact cut point scores are as follows: below level 1 (a score less than or equal to 334.94); level 1 (a score greater than 334.94 and less than or equal to 409.54); level 2 (a score greater than 409.54 and less than or equal to 484.14); level 3 (a score greater than 484.14 and less than or equal to 558.73); level 4 (a score greater than 558.73 and less than or equal to 633.33); level 5 (a score greater than 633.33 and less than or equal to 707.93); and level 6 (a score greater than 707.93). Scores are reported on a scale from 0 to 1,000. The Organization for Economic Cooperation and Development (OECD) average is the average of the national averages of the OECD member countries, with each country weighted equally. Detail may not sum to totals because of rounding. There were no statistically significant differences between U.S. students and the OECD average in the percentages of students at each proficiency level.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Figure S2. Average scores of 15-year-old students in the United States and OECD countries on science literacy scale: 2006 and 2009



* $p < .05$. U.S. average is significantly different from the Organization for Economic Cooperation and Development (OECD) trend score average at the .05 level of statistical significance.
** $p < .05$. U.S. average in 2006 is significantly different from the U.S. average in 2009 at the .05 level of statistical significance.
NOTE: The OECD trend scores are based on the averages of the 34 countries that participated in both the 2006 and 2009 assessments, met all technical standards, and that are currently members of the OECD. The Program for International Student Assessment (PISA) science framework was revised in 2006. Because of changes in the framework, it is not possible to compare science learning outcomes from PISA 2000 and 2003 with those from PISA 2006 and 2009. Scores are reported on a scale from 0 to 1,000.
SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2006 and 2009.

Same as Report Figure 8

Table S2. Average scores of 15-year-old students on science literacy scale, by country: 2006 and 2009

Country	2006		2009	
	Score	s.e.	Score	s.e.
OECD trend score ¹	498	0.5	501	0.5
<i>OECD countries</i>				
Australia	527	2.3	527	2.5
Austria	511	3.9	494	3.2
Belgium	510	2.5	507	2.5
Canada	534	2.0	529	1.6
Chile	438	4.3	447	2.9
Czech Republic	513	3.5	500	3.0
Denmark	496	3.1	499	2.5
Estonia	531	2.5	528	2.7
Finland	563	2.0	554	2.3
France	495	3.4	498	3.6
Germany	516	3.8	520	2.8
Greece	473	3.2	470	4.0
Hungary	504	2.7	503	3.1
Iceland	491	1.6	496	1.4
Ireland	508	3.2	508	3.3
Israel	454	3.7	455	3.1
Italy	475	2.0	489	1.8
Japan	531	3.4	539	3.4
Korea, Republic of	522	3.4	538	3.4
Luxembourg	486	1.1	484	1.2
Mexico	410	2.7	416	1.8
Netherlands	525	2.7	522	5.4
New Zealand	530	2.7	532	2.6
Norway	487	3.1	500	2.6
Poland	498	2.3	508	2.4
Portugal	474	3.0	493	2.9
Slovak Republic	488	2.6	490	3.0
Slovenia	519	1.1	512	1.1
Spain	488	2.6	488	2.1
Sweden	503	2.4	495	2.7
Switzerland	512	3.2	517	2.8
Turkey	424	3.8	454	3.6
United Kingdom	515	2.3	514	2.5
United States	489	4.2	502	3.6

See notes at end of table.

Table S2. Average scores of 15-year-old students on science literacy scale, by country: 2006 and 2009—Continued

Country	2006		2009	
	Score	s.e.	Score	s.e.
<i>Non-OECD countries</i>				
Albania	—	†	391	3.9
Argentina	391	6.1	401	4.6
Azerbaijan	382	2.8	373	3.1
Brazil	390	2.8	405	2.4
Bulgaria	434	6.1	439	5.9
<i>Chinese Taipei</i>	532	3.6	520	2.6
Colombia	388	3.4	402	3.6
Croatia	493	2.4	486	2.8
<i>Dubai-UAE</i>	—	†	466	1.2
<i>Hong Kong-China</i>	542	2.5	549	2.8
Indonesia	393	5.7	383	3.8
Jordan	422	2.8	415	3.5
Kazakhstan	—	†	400	3.1
Kyrgyz Republic	322	2.9	330	2.9
Latvia	490	3.0	494	3.1
Liechtenstein	522	4.1	520	3.4
Lithuania	488	2.8	491	2.9
<i>Macao-China</i>	511	1.1	511	1.0
Montenegro, Republic of	412	1.1	401	2.0
Panama	—	†	376	5.7
Peru	—	†	369	3.5
Qatar	349	0.9	379	0.9
Romania	418	4.2	428	3.4
Russian Federation	479	3.7	478	3.3
Serbia, Republic of	436	3.0	443	2.4
<i>Shanghai-China</i>	—	†	575	2.3
Singapore	—	†	542	1.4
Thailand	421	2.1	425	3.0
Trinidad and Tobago	—	†	410	1.2
Tunisia	386	3.0	401	2.7
Uruguay	428	2.7	427	2.6

— Not available.

† Not applicable.

¹ The Organization for Economic Cooperation and Development (OECD) trend scores are based on the averages of the 34 countries that participated in both the 2006 and 2009 assessments, met all technical standards, and that are currently members of the OECD.

NOTE: The Program for International Student Assessment (PISA) science framework was revised in 2006. Because of changes in the framework, it is not possible to compare science learning outcomes from PISA 2000 and 2003 with those from PISA 2006 and 2009. Because PISA is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries and are not included in the OECD average. Scores are reported on a scale from 0 to 1,000. Standard error is noted by s.e. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2006 and 2009.

Table S3. Scores of 15-year-old students on science literacy scale at selected percentiles, by country: 2009

Country	Percentile													
	5 th		10 th		25 th		50 th		75 th		90 th		95 th	
	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.
OECD average	341	1.0	377	0.8	438	0.7	504	0.6	567	0.6	619	0.6	649	0.7
<i>OECD countries</i>														
Australia	355	4.0	395	4.0	461	2.8	531	2.7	597	2.8	655	3.9	688	5.0
Austria	321	6.8	358	6.2	424	4.8	499	3.9	569	3.6	623	3.3	653	3.4
Belgium	321	6.2	364	4.8	438	3.6	516	3.1	583	2.8	634	3.1	661	3.2
Canada	377	2.8	412	2.7	469	2.0	531	2.1	593	1.7	642	1.7	669	2.6
Chile	315	4.3	343	4.1	392	3.5	447	3.1	502	3.6	553	3.8	583	5.0
Czech Republic	338	6.5	375	5.6	437	3.9	502	3.5	568	3.4	624	4.0	657	4.4
Denmark	343	4.1	379	3.9	438	3.1	502	2.8	564	2.9	615	3.7	645	3.8
Estonia	388	5.0	419	4.7	472	3.8	528	3.1	586	3.1	635	3.5	665	4.3
Finland	400	4.2	437	4.2	496	3.3	559	3.0	617	2.9	665	3.0	694	3.6
France	314	8.1	358	7.1	433	5.6	507	4.2	572	3.8	624	4.2	653	4.6
Germany	345	7.0	383	6.2	452	4.1	527	3.8	594	3.3	645	3.5	675	3.8
Greece	318	7.6	353	6.3	409	5.3	472	4.3	535	3.8	586	3.6	616	3.4
Hungary	348	11.4	388	7.6	446	4.6	508	3.0	564	3.7	609	3.6	636	4.4
Iceland	330	4.3	370	4.3	435	2.6	499	2.0	561	2.2	616	2.8	647	4.4
Ireland	341	8.3	382	4.9	445	3.7	514	3.5	576	3.3	627	4.0	656	4.4
Israel	275	8.1	314	5.5	382	4.5	458	3.5	531	3.3	590	4.0	623	4.2
Italy	325	3.8	362	2.6	424	2.3	494	2.1	557	2.0	609	2.0	639	2.3
Japan	361	8.7	405	7.3	477	4.8	550	3.3	610	3.2	659	3.5	686	4.1
Korea, Republic of	399	6.5	431	5.2	485	4.2	542	3.6	595	3.7	640	3.7	665	4.8
Luxembourg	304	4.6	345	3.2	415	3.1	489	2.0	558	2.3	615	2.1	646	4.0
Mexico	291	2.8	318	2.1	364	1.7	415	1.9	468	2.1	517	2.8	544	2.8
Netherlands	362	6.8	395	7.0	453	7.6	525	7.7	594	5.1	645	4.8	673	4.9
New Zealand	348	5.6	390	4.3	461	4.1	539	2.9	608	3.0	667	3.3	697	3.6
Norway	346	4.4	382	3.3	440	3.0	502	2.9	563	2.9	615	3.7	644	4.0
Poland	364	3.9	396	3.3	448	2.7	509	3.0	569	2.7	621	2.9	650	3.8
Portugal	354	4.0	384	3.7	436	3.7	494	3.5	551	3.0	601	3.3	627	3.8
Slovak Republic	335	6.0	371	4.9	427	3.9	492	3.7	556	3.4	612	4.1	643	4.6
Slovenia	355	2.9	387	2.3	446	2.0	514	2.1	580	2.4	633	3.0	661	4.3
Spain	338	3.5	373	3.2	431	3.0	493	2.3	549	2.2	597	2.2	625	2.3
Sweden	327	4.7	367	4.6	429	3.8	497	3.0	564	3.4	622	3.9	654	4.8
Switzerland	352	4.2	388	3.6	452	3.5	521	3.3	585	3.4	637	3.8	667	4.3
Turkey	322	5.0	350	4.2	397	3.3	452	3.9	510	4.6	560	5.8	587	6.4
United Kingdom	348	4.3	385	3.6	447	3.7	517	3.2	583	3.1	640	3.3	672	3.9
United States	341	4.8	374	4.5	433	3.9	502	4.6	572	4.7	629	5.1	662	6.7

See notes at end of table.

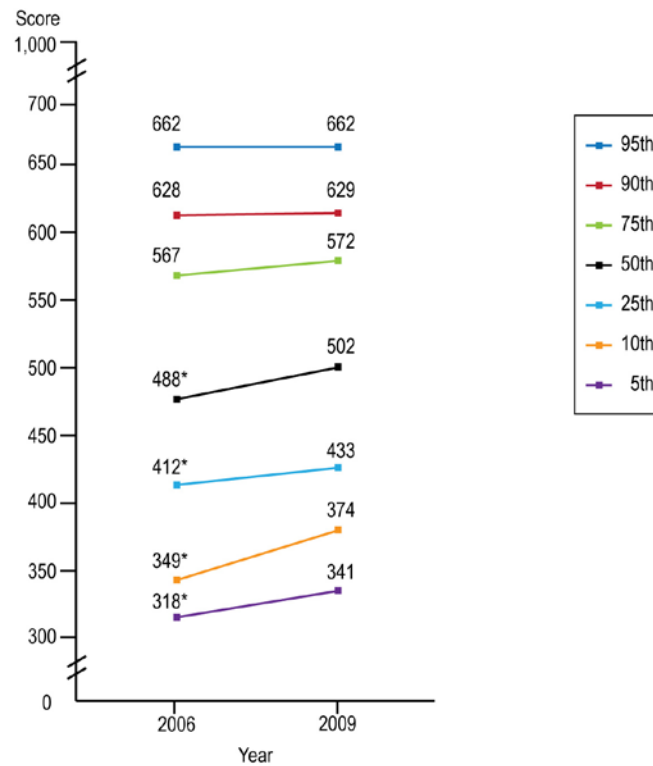
Table S3. Scores of 15-year-old students on science literacy scale at selected percentiles, by country: 2009—
Continued

Country	Percentile													
	5 th		10 th		25 th		50 th		75 th		90 th		95 th	
	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.	Score	s.e.
<i>Non-OECD countries</i>														
Albania	242	5.4	276	4.7	331	4.5	393	4.7	454	4.8	504	4.9	532	4.8
Argentina	228	10.6	271	7.6	334	5.5	404	5.0	471	5.5	530	6.6	564	7.9
Azerbaijan	257	4.9	281	4.0	321	3.6	370	3.3	421	3.7	471	5.1	502	5.6
Brazil	275	3.5	302	3.1	348	2.3	401	2.7	458	3.4	517	4.0	554	4.8
Bulgaria	263	7.6	302	7.0	367	7.6	441	7.2	514	6.8	575	5.7	607	7.1
<i>Chinese Taipei</i>	370	4.4	404	3.6	464	3.1	525	2.9	581	3.3	628	4.3	654	4.4
Colombia	268	6.6	298	6.2	348	4.7	401	3.8	457	3.6	506	3.6	536	4.1
Croatia	348	4.7	377	4.0	429	3.7	488	3.5	546	3.5	595	4.0	624	5.0
<i>Dubai-UAE</i>	294	2.5	330	2.5	391	1.6	465	2.1	542	1.9	606	3.0	638	3.3
<i>Hong Kong-China</i>	393	7.3	432	4.9	494	3.9	556	2.9	610	2.9	655	2.9	681	3.3
Indonesia	272	5.4	296	4.0	336	3.7	380	4.0	428	4.6	472	6.2	499	5.4
Jordan	264	6.2	301	5.4	357	4.4	420	3.9	477	3.9	526	4.4	556	5.0
Kazakhstan	262	4.9	293	4.3	342	3.4	397	3.6	458	3.8	515	5.1	549	6.1
Kyrgyz Republic	183	4.9	215	4.6	269	3.9	329	2.9	388	3.4	444	5.0	482	6.1
Latvia	365	5.7	392	4.5	440	4.1	497	3.3	548	3.2	593	4.0	619	3.3
Liechtenstein	373	10.4	402	9.3	457	7.4	523	6.9	583	6.2	631	9.3	659	7.3
Lithuania	351	6.1	382	4.9	434	3.7	493	3.0	549	3.2	600	3.9	630	3.7
<i>Macao-China</i>	381	2.5	411	1.9	461	2.0	514	1.9	564	1.7	608	2.5	632	3.2
Montenegro, Republic of	257	4.8	290	4.1	343	3.0	402	2.5	461	1.9	512	3.0	543	3.9
Panama	232	7.5	260	7.9	315	7.7	373	7.0	436	6.7	495	8.0	527	6.3
Peru	225	5.3	256	4.5	310	3.7	368	3.4	428	4.2	484	6.4	519	7.8
Qatar	228	2.4	257	1.7	306	1.5	368	1.5	443	1.7	524	2.5	572	2.8
Romania	301	5.0	327	4.2	373	4.4	428	4.4	483	4.0	530	4.2	558	4.2
Russian Federation	331	5.8	364	4.7	418	4.0	478	3.7	539	3.5	594	4.6	628	5.2
Serbia, Republic of	302	5.0	334	4.4	387	3.1	444	2.5	501	3.0	548	3.3	579	3.2
<i>Shanghai-China</i>	430	4.9	467	4.4	523	3.0	580	2.7	632	2.8	674	3.4	700	3.3
Singapore	362	3.5	401	3.1	471	2.0	547	2.2	617	2.0	673	3.0	704	4.1
Thailand	297	5.6	326	4.8	373	3.2	424	3.0	477	3.3	527	4.1	559	5.7
Trinidad and Tobago	234	3.6	271	3.2	335	3.1	410	1.9	484	2.9	552	2.6	592	3.2
Tunisia	265	4.1	296	3.6	345	3.2	402	3.0	458	3.3	504	4.5	531	5.4
Uruguay	268	5.2	303	3.6	362	3.4	427	2.8	493	3.5	551	3.8	584	4.2

NOTE: This table shows the threshold (or cut point) score for the following: (a) 5th percentile – the bottom 5 percent of students; (b) 10th percentile – the bottom 10 percent of students; (c) 25th percentile – the bottom quarter of students; (d) 50th percentile – the median (half the students scored below the cut point and half scored above it); (e) 75th percentile – the top quarter of students; (f) 90th percentile – the top 10 percent of students; and (g) 95th percentile – the top 5 percent of students. The percentile ranges are specific to each country's distribution of scores and to each assessment administration, enabling users to compare scores at the cut points across countries and over time. The Organization for Economic Cooperation and Development (OECD) average is the average of the national averages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries. Scores are reported on a scale from 0 to 1,000. Standard error is noted by s.e. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Figure S3. Scores of U.S. 15-year-old students on science literacy scale at selected percentiles: 2006 and 2009



* $p < .05$. Significantly different from the 2009 score at the .05 level of statistical significance.

NOTE: This figure shows the threshold (or cut point) score for the following: (a) 5th percentile – the bottom 5 percent of students; (b) 10th percentile – the bottom 10 percent of students; (c) 25th percentile – the bottom quarter of students; (d) 50th percentile – the median (half the students scored below the cut point and half scored above it); (e) 75th percentile – the top quarter of students; (f) 90th percentile – the top 10 percent of students; and (g) 95th percentile – the top 5 percent of students. The percentile ranges are specific to each country's distribution of scores and to each assessment administration, enabling users to compare scores at the cut points across countries and over time. The Program for International Student Assessment (PISA) science framework was revised in 2006. Because of changes in the framework, it is not possible to compare science learning outcomes from PISA 2000 and 2003 with those from PISA 2006 and 2009. Scores are reported on a scale from 0 to 1,000.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2006 and 2009.

Table S3A. Scores of U.S. 15-year-old students on science literacy scale at selected percentiles: 2006 and 2009

Selected percentiles	2006		2009	
	Score	s.e.	Score	s.e.
95th percentile	662	4.8	662	6.7
90th percentile	628	4.3	629	5.1
75th percentile	567	4.6	572	4.7
50th percentile	488*	4.7	502	4.6
25th percentile	412*	5.4	433	3.9
10th percentile	349*	5.9	374	4.5
5th percentile	318*	4.5	341	4.8
Mean	489*	4.2	502	3.6

* $p < .05$. Significantly different from the 2009 score at the .05 level of statistical significance.

NOTE: This table shows the threshold (or cut point) score for the following: (a) 5th percentile – the bottom 5 percent of students; (b) 10th percentile – the bottom 10 percent of students; (c) 25th percentile – the bottom quarter of students; (d) 50th percentile – the median (half the students scored below the cut point and half scored above it); (e) 75th percentile – the top quarter of students; (f) 90th percentile – the top 10 percent of students; and (g) 95th percentile – the top 5 percent of students. The percentile ranges are specific to each country's distribution of scores and to each assessment administration, enabling users to compare scores at the cut points across countries and over time. The Program for International Student Assessment (PISA) science framework was revised in 2006. Because of changes in the framework, it is not possible to compare science learning outcomes from PISA 2000 and 2003 with those from PISA 2006 and 2009. Scores are reported on a scale from 0 to 1,000. Standard error is noted by s.e.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2006 and 2009.

Table S4. Percentage distribution of 15-year-old students on science literacy scale, by proficiency level and country: 2009

Country	Below level 1		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
OECD average	5.0	0.10	13.0	0.14	24.4	0.16	28.6	0.17	20.6	0.16	7.4	0.10	1.1	0.04
<i>OECD countries</i>														
Australia	3.4	0.27	9.2	0.48	20.0	0.59	28.4	0.65	24.5	0.66	11.5	0.58	3.1	0.50
Austria	6.7	0.83	14.3	0.99	23.8	1.00	26.6	1.04	20.6	1.03	7.1	0.61	1.0	0.19
Belgium	6.4	0.57	11.7	0.61	20.7	0.65	27.2	0.76	24.0	0.82	9.0	0.59	1.1	0.19
Canada	2.0	0.21	7.5	0.37	20.9	0.49	31.2	0.62	26.2	0.65	10.5	0.45	1.6	0.15
Chile	8.4	0.83	23.9	1.07	35.2	0.94	23.6	1.07	7.9	0.69	1.1	0.22	#	†
Czech Republic	4.7	0.57	12.6	0.90	25.6	0.97	28.8	1.25	19.9	0.87	7.2	0.58	1.2	0.22
Denmark	4.1	0.42	12.5	0.65	26.0	0.77	30.6	1.07	20.1	0.85	5.9	0.55	0.9	0.23
Estonia	1.3	0.31	7.0	0.72	21.3	1.07	34.3	1.10	25.7	1.07	9.0	0.63	1.4	0.26
Finland	1.1	0.19	4.9	0.41	15.3	0.73	28.8	0.95	31.2	1.08	15.4	0.74	3.3	0.34
France	7.1	0.82	12.2	0.83	22.1	1.25	28.8	1.32	21.7	1.02	7.3	0.70	0.8	0.22
Germany	4.1	0.51	10.7	0.81	20.1	0.86	27.3	1.08	25.0	1.18	10.9	0.68	1.9	0.29
Greece	7.2	1.07	18.1	1.04	29.8	0.96	27.9	1.20	14.0	0.95	2.8	0.31	0.3!	0.11
Hungary	3.8	0.93	10.4	0.86	25.5	1.13	33.2	1.32	21.8	1.19	5.1	0.55	0.3!	0.13
Iceland	5.5	0.48	12.5	0.63	25.8	0.75	30.4	0.94	18.8	0.84	6.1	0.43	0.8	0.19
Ireland	4.4	0.69	10.7	1.01	23.3	1.17	29.9	0.99	22.9	0.95	7.5	0.68	1.2	0.23
Israel	13.9	1.06	19.2	0.72	26.0	1.04	24.1	0.76	12.8	0.72	3.5	0.36	0.5	0.13
Italy	6.1	0.39	14.5	0.50	25.5	0.63	29.5	0.54	18.6	0.53	5.3	0.29	0.5	0.07
Japan	3.2	0.52	7.5	0.68	16.3	0.87	26.6	0.83	29.5	0.98	14.4	0.73	2.6	0.39
Korea, Republic of	1.1	0.32	5.2	0.68	18.5	1.15	33.1	1.13	30.4	1.14	10.5	0.90	1.1	0.31
Luxembourg	8.4	0.52	15.3	0.88	24.3	0.69	27.1	0.87	18.2	0.91	6.0	0.49	0.7	0.12
Mexico	14.5	0.60	32.8	0.64	33.6	0.60	15.8	0.61	3.1	0.27	0.2	0.05	#	†
Netherlands	2.6	0.53	10.6	1.33	21.8	1.53	26.9	1.07	25.3	1.69	11.2	1.10	1.5	0.30
New Zealand	4.0	0.53	9.4	0.52	18.1	1.01	25.8	0.88	25.1	0.74	14.0	0.72	3.6	0.36
Norway	3.8	0.48	11.9	0.92	26.6	0.95	31.1	0.71	20.1	0.82	5.9	0.65	0.5!	0.16
Poland	2.3	0.33	10.9	0.69	26.1	0.80	32.1	0.81	21.2	0.97	6.8	0.49	0.8	0.19
Portugal	3.0	0.35	13.5	0.92	28.9	1.08	32.3	1.08	18.1	1.00	3.9	0.51	0.3!	0.13
Slovak Republic	5.0	0.58	14.2	0.89	27.6	1.03	29.2	0.95	17.7	0.85	5.6	0.53	0.7	0.20
Slovenia	3.1	0.22	11.7	0.45	23.7	0.66	28.7	1.05	23.0	0.72	8.7	0.61	1.2	0.27
Spain	4.6	0.37	13.6	0.75	27.9	0.67	32.3	0.69	17.6	0.57	3.7	0.26	0.2	0.05
Sweden	5.8	0.51	13.4	0.75	25.6	0.80	28.4	0.84	18.7	0.86	7.1	0.56	1.0	0.22
Switzerland	3.5	0.31	10.6	0.58	21.3	1.09	29.8	1.02	24.1	1.03	9.2	0.73	1.5	0.23
Turkey	6.9	0.81	23.0	1.13	34.5	1.16	25.2	1.24	9.1	1.13	1.1	0.29	#	†
United Kingdom	3.8	0.34	11.2	0.68	22.7	0.73	28.8	0.97	22.2	0.83	9.5	0.61	1.9	0.25
United States	4.2	0.54	13.9	0.93	25.0	0.87	27.5	0.80	20.1	0.94	7.9	0.78	1.3	0.28

See notes at end of table.

Table S4. Percentage distribution of 15-year-old students on science literacy scale, by proficiency level and country: 2009—Continued

Country	Below level 1		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
<i>Non-OECD countries</i>														
Albania	26.3	1.55	31.0	1.28	27.7	1.24	12.9	1.34	2.0	0.38	‡	†	#	†
Argentina	25.2	1.70	27.2	1.37	26.7	1.20	15.4	1.12	4.8	0.69	0.6	0.18	#	†
Azerbaijan	31.5	1.68	38.5	1.13	22.4	1.07	6.7	0.76	0.8	0.22	#	†	#	†
Brazil	19.7	0.90	34.5	0.99	28.8	0.90	12.6	0.81	3.9	0.38	0.6	0.11	#	†
Bulgaria	16.5	1.63	22.3	1.55	26.6	1.31	21.0	1.36	10.9	1.01	2.4	0.48	‡	†
<i>Chinese Taipei</i>	2.2	0.34	8.9	0.60	21.1	0.91	33.3	1.04	25.8	1.10	8.0	0.74	0.8	0.22
Colombia	20.4	1.81	33.7	1.23	30.2	1.40	13.1	1.04	2.5	0.34	0.1!	0.05	#	†
Croatia	3.6	0.47	14.9	0.99	30.0	1.07	31.1	1.03	16.7	0.98	3.5	0.57	‡	†
<i>Dubai-UAE</i>	11.0	0.47	19.5	0.57	26.0	0.78	22.9	0.73	14.9	0.59	4.8	0.35	0.8	0.21
<i>Hong Kong-China</i>	1.4	0.31	5.2	0.61	15.1	0.73	29.4	0.99	32.7	0.99	14.2	0.94	2.0	0.30
Indonesia	24.6	1.77	41.0	1.54	27.0	1.55	6.9	1.01	0.5!	0.22	#	†	#	†
Jordan	18.0	1.20	27.6	1.13	32.2	1.21	17.6	1.12	4.1	0.51	0.5!	0.18	#	†
Kazakhstan	22.4	1.31	33.0	1.08	27.9	1.14	12.8	0.82	3.6	0.62	0.3!	0.16	#	†
Kyrgyz Republic	52.9	1.32	29.0	0.94	13.3	0.76	4.0	0.54	0.7	0.20	#	†	#	†
Latvia	2.3	0.56	12.5	1.00	29.1	1.07	35.5	1.16	17.6	1.06	3.0	0.47	‡	†
Liechtenstein	‡	†	9.9	1.94	23.8	3.07	29.8	3.67	25.4	2.67	9.0	1.74	‡	†
Lithuania	3.5	0.65	13.5	0.77	28.9	1.02	32.4	1.18	17.0	0.84	4.3	0.41	0.4!	0.13
<i>Macao-China</i>	1.5	0.21	8.1	0.36	25.2	0.77	37.8	0.74	22.7	0.98	4.5	0.47	0.2!	0.08
Montenegro, Republic of	22.2	1.01	31.4	0.98	29.4	1.04	13.6	0.79	3.1	0.39	‡	†	#	†
Panama	32.8	2.74	32.4	1.96	23.2	1.93	9.3	1.19	2.2	0.46	‡	†	#	†
Peru	35.3	1.50	33.0	1.29	21.7	1.21	8.0	0.79	1.8	0.37	‡	†	#	†
Qatar	36.4	0.58	28.8	0.54	18.8	0.56	9.8	0.30	4.8	0.23	1.3	0.14	0.1!	0.05
Romania	11.9	1.13	29.5	1.57	34.1	1.73	19.7	1.18	4.4	0.59	0.4!	0.12	#	†
Russian Federation	5.5	0.67	16.5	1.06	30.7	1.14	29.0	1.15	13.9	0.91	3.9	0.50	0.4!	0.17
Serbia, Republic of	10.1	0.82	24.3	0.96	33.9	1.17	23.6	0.75	7.1	0.57	1.0	0.18	#	†
<i>Shanghai-China</i>	0.4	0.11	2.8	0.36	10.5	0.66	26.0	0.99	36.1	1.12	20.4	0.96	3.9	0.45
Singapore	2.8	0.24	8.7	0.52	17.5	0.58	25.4	0.83	25.7	0.70	15.3	0.67	4.6	0.50
Thailand	12.2	1.10	30.6	1.01	34.7	1.34	17.5	0.95	4.4	0.51	0.6!	0.27	#	†
Trinidad and Tobago	25.1	0.87	24.9	0.92	25.2	0.88	16.0	0.79	7.1	0.40	1.8	0.23	‡	†
Tunisia	21.3	1.17	32.4	1.08	30.9	1.00	13.0	0.85	2.2	0.43	‡	†	#	†
Uruguay	17.0	0.94	25.6	0.86	29.3	1.01	19.5	1.02	7.1	0.51	1.4	0.22	0.1!	0.04

† Not applicable.

Rounds to zero.

! Interpret data with caution.

‡ Reporting standards not met.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into science literacy levels according to their scores. Exact cut point scores are as follows: below level 1 (a score less than or equal to 334.94); level 1 (a score greater than 334.94 and less than or equal to 409.54); level 2 (a score greater than 409.54 and less than or equal to 484.14); level 3 (a score greater than 484.14 and less than or equal to 558.73); level 4 (a score greater than 558.73 and less than or equal to 633.33); level 5 (a score greater than 633.33 and less than or equal to 707.93); and level 6 (a score greater than 707.93). Scores are reported on a scale from 0 to 1,000. The Organization for Economic Cooperation and Development (OECD) average is the average of the national percentages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries and are not included in the OECD average. Standard error is noted by s.e. Detail may not sum to totals because of rounding. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.

Table S4A. Percentage of 15-year-old students on science literacy scale within selected proficiency level ranges, by country: 2009

Country	Below level 2		Level 4 and above		Level 5 and above	
	Percent	s.e.	Percent	s.e.	Percent	s.e.
OECD average	18.0	0.18	29.1	0.20	8.5	0.12
<i>OECD countries</i>						
Australia	12.6*	0.62	39.0*	0.99	14.5*	0.82
Austria	20.9	1.35	28.6	1.26	8.0	0.63
Belgium	18.0	0.85	34.1*	1.04	10.1	0.69
Canada	9.6*	0.45	38.3*	0.79	12.1*	0.48
Chile	32.3*	1.42	8.9*	0.75	1.1*	0.23
Czech Republic	17.3	1.16	28.3	1.17	8.4	0.68
Denmark	16.6	0.79	26.8	1.08	6.7*	0.62
Estonia	8.3*	0.82	36.1*	1.29	10.4	0.77
Finland	6.0*	0.48	49.9*	1.18	18.7*	0.91
France	19.3	1.28	29.8	1.49	8.1	0.80
Germany	14.8*	1.03	37.8*	1.31	12.8*	0.77
Greece	25.3*	1.60	17.0*	1.08	3.1*	0.35
Hungary	14.1*	1.38	27.2	1.39	5.4*	0.61
Iceland	17.9	0.72	25.8*	0.83	7.0*	0.43
Ireland	15.2	1.10	31.6	1.28	8.7	0.77
Israel	33.1*	1.23	16.8*	0.84	3.9*	0.42
Italy	20.6*	0.62	24.4*	0.68	5.8*	0.31
Japan	10.7*	1.05	46.4*	1.33	16.9*	0.94
Korea, Republic of	6.3*	0.85	42.0*	1.70	11.6	1.06
Luxembourg	23.7*	0.78	24.9*	0.69	6.7*	0.48
Mexico	47.4*	0.95	3.3*	0.29	0.2*	0.05
Netherlands	13.2*	1.57	38.1*	2.36	12.7*	1.23
New Zealand	13.4*	0.72	42.8*	1.07	17.6*	0.79
Norway	15.8	0.94	26.5	1.10	6.4*	0.63
Poland	13.1*	0.84	28.7	1.12	7.5	0.49
Portugal	16.5	1.06	22.2*	1.19	4.2*	0.54
Slovak Republic	19.3	1.15	24.0*	1.12	6.2*	0.59
Slovenia	14.8*	0.48	32.8*	0.85	9.9	0.62
Spain	18.2	0.86	21.5*	0.71	4.0*	0.28
Sweden	19.1	1.04	26.8	1.03	8.1	0.59
Switzerland	14.0*	0.76	34.9*	1.43	10.7	0.85
Turkey	30.0*	1.45	10.3*	1.30	1.1*	0.31
United Kingdom	15.0*	0.82	33.6*	1.14	11.4	0.71
United States	18.1	1.10	29.3	1.37	9.2	0.97

See notes at end of table.

Table S4A. Percentage of 15-year-old students on science literacy scale within selected proficiency level ranges, by country: 2009—Continued

Country	Below level 2		Level 4 and above		Level 5 and above	
	Percent	s.e.	Percent	s.e.	Percent	s.e.
<i>Non-OECD countries</i>						
Albania	57.3*	1.96	2.1*	0.39	‡	†
Argentina	52.4*	1.93	5.5*	0.78	0.7*	0.19
Azerbaijan	70.0*	1.50	0.8*	0.22	#	†
Brazil	54.2*	1.30	4.4*	0.46	0.6*	0.11
Bulgaria	38.8*	2.50	13.6*	1.35	2.6*	0.52
<i>Chinese Taipei</i>	11.1*	0.71	34.6*	1.40	8.8	0.87
Colombia	54.1*	1.93	2.6*	0.36	0.1!*	0.05
Croatia	18.5	1.12	20.4*	1.15	3.7*	0.61
<i>Dubai-UAE</i>	30.5*	0.61	20.5*	0.57	5.6*	0.32
<i>Hong Kong-China</i>	6.6*	0.74	48.9*	1.30	16.2*	0.99
Indonesia	65.6*	2.31	0.5!*	0.22	#	†
Jordan	45.6*	1.67	4.6*	0.57	0.5!*	0.18
Kazakhstan	55.4*	1.59	3.9*	0.63	0.3!*	0.15
Kyrgyz Republic	82.0*	1.11	0.8*	0.19	#	†
Latvia	14.7*	1.21	20.7*	1.23	3.1*	0.46
Liechtenstein	11.3*	1.91	35.1*	2.24	9.7	1.75
Lithuania	17.0	1.14	21.6*	1.05	4.6*	0.46
<i>Macao-China</i>	9.6*	0.42	27.4	0.73	4.8*	0.46
Montenegro, Republic of	53.6*	1.05	3.4*	0.42	‡	†
Panama	65.1*	2.81	2.4*	0.47	‡	†
Peru	68.3*	1.67	2.0*	0.44	‡	†
Qatar	65.2*	0.56	6.2*	0.23	1.4*	0.14
Romania	41.4*	2.11	4.8*	0.62	0.4*	0.11
Russian Federation	22.0*	1.39	18.3*	1.10	4.4*	0.54
Serbia, Republic of	34.4*	1.25	8.1*	0.64	1.0*	0.18
<i>Shanghai-China</i>	3.2*	0.40	60.3*	1.18	24.3*	1.17
Singapore	11.5*	0.50	45.6*	0.81	19.9*	0.61
Thailand	42.8*	1.60	5.0*	0.64	0.6!*	0.28
Trinidad and Tobago	49.9*	0.67	9.0*	0.42	1.9*	0.23
Tunisia	53.7*	1.42	2.3*	0.50	‡	†
Uruguay	42.6*	1.12	8.6*	0.63	1.5*	0.23

† Not applicable.

Rounds to zero.

! Interpret data with caution.

‡ Reporting standards not met.

* $p < .05$. Significantly different from the U.S. average at the .05 level of statistical significance.

NOTE: To reach a particular proficiency level, a student must correctly answer a majority of items at that level. Students were classified into reading literacy levels according to their scores. Exact cut point scores are as follows: below level 1 (a score less than or equal to 334.94); level 1 (a score greater than 334.94 and less than or equal to 409.54); level 2 (a score greater than 409.54 and less than or equal to 484.14); level 3 (a score greater than 484.14 and less than or equal to 558.73); level 4 (a score greater than 558.73 and less than or equal to 633.33); level 5 (a score greater than 633.33 and less than or equal to 707.93); and level 6 (a score greater than 707.93). Scores are reported on a scale from 0 to 1,000. The Organization for Economic Cooperation and Development (OECD) average is the average of the national percentages of the OECD member countries, with each country weighted equally. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD countries are displayed separately from those of the OECD countries. Standard error is noted by s.e. Italics indicate non-national entities. UAE refers to United Arab Emirates.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009.